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LONGITUDINAL RELATIONS BETWEEN
PARENTAL MONITORING, PARENTAL ACCEPTANCE, AND EXTERNALIZING
BEHAVIORS AMONG URBAN AFRICAN AMERICAN ADOLESCENTS

A thesis submitted in partial fulfillment of the requirements for the degree of
Master of Science at Virginia Commonwealth University

By: RACHEL C. GARTHE
Bachelor of Arts, Psychology, North Central College, 2011

Director: Terri N. Sullivan, Ph.D.
Associate Professor
Department of Psychology

Virginia Commonwealth University
Richmond, Virginia
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Table of Contents

	Page
Acknowledgements.....	ii
List of Tables.....	vi
List of Figures.....	vii
Abstract.....	viii
Introduction.....	1
Literature Review.....	6
The Parent Child Relationship in Adolescence.....	6
Developmental Changes in Adolescence.....	7
Parenting Styles Theory.....	9
Attachment Theory.....	13
Family Systems Theory.....	15
Parenting in African American Families.....	17
The Protective Role of Parental Factors.....	22
Parental Knowledge and Monitoring Strategies.....	23
Parental Knowledge and Externalizing Behaviors.....	24
Parenting Practices that Promote Parental Knowledge.....	29
The Influence of Child Disclosure.....	29
The Influence of Parental Control.....	33
The Influence of Parental Solicitation.....	35
Relations between Parental Acceptance, Parental Control, and Parental Solicitation.....	36
Putting It All Together: Parental Monitoring, Parental Acceptance, Externalizing Behaviors.....	41

The Influence of Sex and Age.....	42
Statement of the Problem.....	45
Study Hypotheses.....	48
Method.....	48
Setting.....	48
Participants.....	49
Procedure.....	50
Measures.....	51
Parental Monitoring.....	51
Parental Acceptance.....	53
Delinquency and Aggression.....	53
Data Analysis.....	55
Results.....	56
Attrition Analyses and Descriptive Statistics.....	56
Hypothesis 1.....	60
Hypothesis 2: The Influence of Sex and Grade.....	62
Hypothesis 3.....	63
Post Hoc Analyses.....	66
Discussion.....	70
Parental Knowledge, Child Disclosure, and Externalizing Outcomes.....	71
Parenting Practices that Promote Parental Knowledge.....	73
Parenting Practices that Promote Child Disclosure.....	74
Post Hoc Analyses.....	77

Limitations.....	78
Implications and Future Research Directions.....	80
Conclusions.....	81
References.....	82
Appendix: Measures.....	98
Vita.....	104

List of Tables

	Page
Table 1. Means, Standard Deviations, and Scale Ranges of Study Variables for the Total Sample.....	57
Table 2. Intercorrelations among Study Variables.....	59
Table 3. Standardized Path Coefficients for Model 1: Direct, Indirect and Total Effects.....	61
Table 4. Chi-Square Tests and Measures of Overall Fit for the Longitudinal Path Models...	63
Table 5. Standardized Path Coefficients for Model 2: Direct, Indirect and Total Effects.....	65
Table 6. Standardized Path Coefficients for Post Hoc Analyses: Direct, Indirect and Total Effects.....	68

List of Figures

	Page
Figure 1. Path Model Representing Relations between Parental Control and Solicitation, Child Disclosure and Parental Knowledge.....	60
Figure 2. Path Model Representing Relations between Child Disclosure Parental Knowledge and Externalizing Behaviors.....	64
Figure 3. Path Model Representing Relations between Parental Solicitation, Acceptance, Knowledge, Child Disclosure, and Externalizing Behaviors.....	67

Abstract

LONGITUDINAL RELATIONS BETWEEN PARENTAL MONITORING, PARENTAL ACCEPTANCE, AND EXTERNALIZING BEHAVIORS AMONG URBAN AFRICAN AMERICAN ADOLESCENTS

By Rachel C. Garthe, B. A.

A thesis submitted in partial fulfillment of the requirements for the degree of
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Virginia Commonwealth University, 2014

Major Director: Terri N. Sullivan, Ph.D.
Associate Professor
Department of Psychology

The prevalence of aggression and delinquency increase during adolescence and are associated with psychosocial adjustment difficulties. It is important to identify aspects of the parent-adolescent relationship that may protect adolescents from these externalizing behaviors. The current study examined longitudinal relations between parental monitoring behaviors, child disclosure, and externalizing behaviors. Participants included 326 African American adolescents and their primary maternal caregivers, recruited from urban neighborhoods characterized by high rates of violence and low socioeconomic status. Participants provided data annually (three waves across two-year timeframe) through face-to-face interviews. Results of longitudinal path models showed that child disclosure predicted parental knowledge, and parental knowledge was associated with fewer externalizing outcomes. Higher levels of parental control predicted less child disclosure. Finally, parental

acceptance predicted fewer child-reported delinquent behaviors through increased levels of child disclosure. Implications suggest that parent-adolescent communication and parental acceptance are protective factors, associated with decreased externalizing outcomes in African American youth.

Longitudinal Relations between Parental Monitoring, Parental Acceptance, and Externalizing Behaviors among Urban African American Adolescents

Externalizing behaviors, including physical aggression and delinquency, are public health concerns because they may result in physical injury and/or involvement with the juvenile justice system including arrests and incarcerations (Odgers et al., 2008). Such behaviors exhibited at school may lead to suspension or expulsion, which take students out of the classroom, and thus decrease their academic instructional time and potential acquisition of skills (Breslau, Breslau, Miller, & Raykov, 2011; Zimmerman, Schutte, Taskinen, & Koller, 2013). Peer-based aggression and delinquency may also result in more sustained involvement with peer groups who support and engage in these behaviors. Prevalence rates for physical aggression and delinquency unfortunately increase during adolescence (Steinberg, 2008). The Youth Risk Behavior Surveillance System, a nationwide survey, found that a third of high school students had been in a physical fight over a 12-month period (CDC: Youth Risk Behavior Surveillance Survey, 2011). Statistics from the Office of Juvenile Justice and Delinquency Prevention also showed that 225 of every 100,000 adolescents aged 10 to 17 were arrested in 2010 (OJJDP, Statistical Briefing Book, 2012). Additionally, adolescents accounted for 14% and 23% of all violent crime and property theft arrests in 2010, respectively (CDC: Youth Risk Behavior Surveillance Survey, 2011). The prevalence rates and negative consequences associated with externalizing behaviors highlight the need to identify protective processes that may prevent or lessen their occurrence.

Parental factors may be particularly important in this regard. Parental knowledge of adolescents' behaviors, activities, and whereabouts is one factor that is negatively associated with externalizing behaviors (e.g., Formoso, Gonzales, & Aiken, 2000; Landsford, Criss,

Pettit, Dodge, & Bates, 2003; Scaramella, Conger, & Simons, 1999; Simons-Morton & Chen, 2005). Stattin and Kerr (2000) underscore that most research on parental monitoring actually assesses parental knowledge. For example, these authors note that parental monitoring measures often include questions about how much parents know about their children's behaviors, activities, and whereabouts (e.g., Stattin, Kerr, & Tilton-Weaver, 2010), and that these constructs were negatively related to externalizing behaviors (e.g., Landsford et al., 2003; Simons-Morton & Chen, 2005). Given the inverse relations between parental knowledge and externalizing behaviors, Stattin and Kerr (2000) highlight that an essential research direction is to better understand *how* parents effectively derive knowledge about youth's behaviors.

Stattin and Kerr (2000) describe three ways that parents gain information about their child or adolescent. Parental control represents rules and restrictions that parents put in place to limit and monitor youth's behaviors. Next, parental solicitation reflects parents' direct questions and requests for information. Lastly, child disclosure encompasses youth's spontaneous disclosure of information to parents. Stattin and Kerr examined relations between these three constructs and parental knowledge among 703 fourteen year-olds living in Sweden. Results showed that each was positively associated with parental knowledge, but that the strongest relations were between child disclosure and parental knowledge. In fact, researchers underscore that the relation between child disclosure and parental knowledge is stronger than associations between parental knowledge and parental control and parental solicitation across a number of studies (e.g., Crouter & Head, 2002; Eaton, Krueger, Johnson, McGue, & Iacono, 2009; Keijsers, Branje, Vandervalk, & Meeus, 2010b; Keijsers, Frijns, Branje, & Meeus, 2009; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Vieno, Nation,

Pastore, & Santinello, 2009; Willoughby & Hamza, 2011).

Racz and McMahon (2011) noted that the strength of relations between child disclosure and parental knowledge merit consideration of child disclosure as the “driver” of parental knowledge. This may be particularly true for adolescents as the dynamics of the parent-child relationship change during this developmental period. For many adolescents, an increasing amount of time is spent with peers as compared to parents and other adults (Nansel, Haynie, & Simons-Morton, 2003). As a result, adolescents spend more time with peers outside the direct supervision and monitoring of parents (Prinstein, Boergers, & Vernberg, 2001). Therefore, parents may need to rely more heavily on child disclosure to learn information about their adolescent’s behaviors. Thus, child disclosure may serve as an important mediator between parental monitoring and externalizing behavior outcomes via its influence on parental knowledge.

The central role of child disclosure in providing parental knowledge emphasizes the need to identify parental and child factors that predict increased rates of this child-driven behavior. Studies report mixed findings that consider whether parent-driven monitoring behaviors, including parental control and solicitation, are associated with child disclosure. Several cross-sectional studies with adolescent samples show positive associations between parental control (e.g., Soenens et al., 2006; Vieno et al., 2009), parental solicitation (e.g., Laird, Marrero, & Sentse, 2010; Padilla-Walker, Harper, & Bean, 2011) and child disclosure. However, while some longitudinal studies support prospective relations between both parental control and solicitation, and child disclosure (e.g., Hamza & Willoughby, 2011), others do not (e.g., Kerr, Stattin, & Burk, 2010). The lack of consistency in these longitudinal findings may reflect methodological issues such as the use of different reporters (i.e., parent

and/or child) across studies (Laird et al., 2010; Soenens et al., 2006). However, the effectiveness of parental control and solicitation in facilitating child disclosure may also differ based on socio-ecological and cultural contexts, and based on parenting styles (Laird et al., 2010; Pittman & Chase-Lansdale, 2001).

With regard to parenting styles, the degree to which adolescents feel accepted by their parent(s) may influence relations between parental solicitation and control, and child disclosure. Adolescents' growing independence leads to developmentally normative transformations in the parent-child relationship (Zimmer-Gembeck & Collins, 2003). In this relationship, a combination of warmth and responsiveness with control and guidance may offer adolescents an optimal chance to develop autonomy and foster positive adjustment. For example, in a sample of 8,700 adolescents ages 14 to 18, Gray and Steinberg (1999) found that granting parental autonomy resulted in the best psychosocial outcomes when combined with high levels of parental involvement-acceptance and behavioral control. In another study of 309 Dutch adolescents and their parents, relations between parental control and delinquent behavior were moderated by levels of parental support (Keijsers et al., 2009). Lastly, Pittman and Chase-Lansdale (2001) found that a combination of firm behavioral control and warmth predicted the most positive outcomes for a sample of 302 African American adolescent girls. Therefore, high levels of parental acceptance in combination with high levels of parental control and solicitation may foster high rates of child disclosure (Armato & Fowler, 2002; Fletcher, Steinberg, & Williams-Wheeler, 2004; Gray & Steinberg, 1999; Pittman & Chase-Lansdale, 2001).

Although researchers have examined relations between parental factors and child disclosure, as well as child disclosure and externalizing behaviors, some limitations exist

within this literature. First, few studies have tested the mediating role of child disclosure between aspects of parental monitoring (i.e., parental control) and parental knowledge (see Vieno et al., 2009 for an exception). Within these analyses, relatively little research exists on the potential moderating role of parental acceptance on relations between parental control and solicitation, and child disclosure. Additionally, few studies have tested the mediating role of parental knowledge on relations between child disclosure and externalizing behaviors (see Soenens et al., 2006 and Vieno et al., 2009 for exceptions). These relations have also yet to be examined longitudinally. Furthermore, most studies utilize composite measures of externalizing behaviors, and do not separately examine delinquency and aggression. Lastly, these relations are understudied among urban African American adolescents.

The present study seeks to address some of these limitations. It focuses on a sample of urban, African American youth living in low-income inner-city contexts. It also examines longitudinal associations between parental monitoring, acceptance, knowledge, and externalizing behaviors (i.e., aggression and delinquency). Although commonly examined components of externalizing behaviors include delinquency, aggression and substance use, the focus of this paper will be on delinquency and aggression. This study will examine a longitudinal path model that explores prospective relations between parent-driven monitoring (i.e., parental control and solicitation) at time 1 (T1), child disclosure at time 2 (T2), parental knowledge at time 3 (T3), and delinquency and aggression at T3. The mediating role of child disclosure at T2 on relations between parent-driven monitoring at T1 and parental knowledge at T3 will be examined. Within these analyses, the moderating role of perceived parental acceptance at T1 on relations between parent-driven monitoring at T1 and child disclosure at

T2 will also be tested. Lastly, the mediating role of parental knowledge at T3 on paths between child disclosure at T2 and externalizing behaviors at T3 will be assessed.

Literature Review

This literature review begins with a description of the parent-child relationship during adolescence, including sections on developmental changes in adolescence, parenting styles, attachment theory, and family systems theory. Following these sections, dynamics of the parent-child relationship among African American families is discussed. Next, research on relations between parental monitoring, parental knowledge, and externalizing outcomes (i.e., delinquency and aggression) is detailed, followed by the predictive nature of child disclosure on parental knowledge. Finally, the role of parent-driven monitoring behaviors, (i.e., control and solicitation) in facilitating child disclosure is reviewed, including a discussion of the potential role of parental acceptance in moderating the relations between parent-driven monitoring behaviors and child disclosure. To conclude the literature review is a section detailing comprehensive models of these relations, including age and sex differences.

The Parent-Child Relationship in Adolescence

The first section focuses on developmental changes in adolescence and the parent-adolescent relationship. Next, the literature on parenting styles theory is reviewed; including how specific parenting styles can impact problem behavior outcomes in adolescence. Following this, research on attachment theory is discussed, with a particular focus on how perceptions of acceptance by parents can influence the parent-adolescent relationship. Lastly, family systems theory is discussed to highlight the importance of a transactional perspective in explaining the parent-adolescent relationship.

Developmental changes in adolescence. Adolescence is characterized by growth in areas of physical, psychosocial, and cognitive development that impacts the adolescent-parent relationship. For example, adolescents experience a number of physical changes. The brain is still developing, and in adolescence, the limbic system matures before the prefrontal cortex. This pattern of development means that adolescents may have difficulty with emotional regulation and impulse control until the prefrontal cortex matures. Therefore, adolescents experience “emotional rushes, unchecked by caution” (Berger, 2014, p. 331). Pubertal development brings rapid growth, both physically and sexually, and hormonal changes. Puberty has an enormous impact on development, including health and numerous outcomes. For example, early maturation has been associated with both internalizing and externalizing problems. Family stress, disruption and conflict may influence puberty and development, as well as obesity, health and sleep (Susman & Dorn, 2009).

Adolescents are also continually struggling to discover their self-identity, and face the psychosocial conflict of identity versus role confusion (Erikson, 1968). They may consider a multitude of new roles, amid physical and physiological changes and social pressures. In this process, adolescents may try new roles and redefine previous roles, thus needing to figure out in an iterative nature who they are and who they want to become (Miller, 2011). In terms of cognitive development, most adolescents are transitioning from logical to formal operational thinking (Piaget, 1952), thus gaining the ability to think in a more abstract, hypothetical and analytic way. In addition, adolescents are able to process information at a faster rate and more efficiently. Lastly, adolescents also increase their processing capacity, allowing for higher reasoning abilities and decision-making (Kuhn, 2009).

In addition to these physical, psychosocial and cognitive changes, adolescents are transitioning from security and dependence on others in childhood, to face increased tasks and responsibilities that will prepare them for independence in adulthood (Finkenauer, Engels, & Kubacka, 2008). Throughout this transition, adolescents may experience challenges in forming their identity, balancing autonomy and individuality with relationships with family, peers, and other adults, and also in trying to balance school, work, family, and friends (Baumrind, 1991). Adolescents begin confiding in their friends and peers more than their parents, romantic and sexual relationships emerge, and they begin spending more time away from their parents and family (Hawk, Hale, Raaijmakers, & Meeus, 2008; Smetana & Metzger, 2008). Also, adolescents become active agents in information management, meaning that they are consciously aware of their parents' attempts to gain information about their behaviors, activities, and whereabouts. It becomes the adolescents' choice of whether or not they wish to disclose information to their parents, and they may selectively keep certain events or knowledge to themselves (Frijns, Finkenaur, Vermulst, & Engels, 2005; Smetana, Metzger, Gettman, & Campione-Barr, 2006).

Tilton-Weaver & Marshall (2008) describe adolescence as an emergence of self-regulation and self-control. Parents are accustomed to having a central role in regulating their children behaviors and activities. Therefore, when adolescents no longer need or seek their parents' direct regulation, parents may find themselves struggling with their new roles. Some parents believe that their time of child rearing is simply over; others feel the need to place more rules and restrictions upon their adolescents' behaviors and activities. It is suggested that parents play a key role in adolescence as they guide their children through this transitional period. However, this process poses as a true challenge to many parents.

Parenting goals need to evolve and change as adolescents' mature to promote autonomy, while still providing guidelines and maintaining the parent-child relationship.

Parental control and solicitation that was accepted at younger ages may be viewed as more intrusive and controlling during adolescence (Hamza & Willoughby, 2011; Hawk et al., 2008). Adolescents may feel the need to create or "fortify privacy boundaries" (Hawk et al., 2008, p. 585). To do so, they may create more time away from direct supervision (e.g., with barriers and privacy rules such as closing doors and asking parents to knock before entering). They may also begin to disclose less information to parents as to lessen parental authority, gain independence and a sense of control over their lives (Keijsers et al., 2009). Smetana and Metzger (2008) suggest that parents and adolescents need to strive for mutual forms of control. Through monitoring, parents can facilitate supervision, while allowing for adolescent autonomy. Control can also be negotiated as an adolescent matures, and communication and trust are also pivotal within the parent-adolescent relationship (Roker & Stace, 2007).

Parenting Styles Theory. Diana Baumrind's (1980; 1991) parenting styles theory posits that parenting may be understood through two global dimensions: demandingness and responsiveness (Baumrind, 1972; 1991; Holmbeck, Paikoff, & Brooks-Gunn, 1995). These dimensions form a classification system for parenting styles that can be labeled as authoritative, authoritarian, or permissive. Authoritative parenting reflects a combination of high demandingness and high responsiveness where parents are warm and affectionate, but also provide guidance and a sense of control. Parents are likely to explain why they enforce certain rules and may be open to negotiation, encourage their children, and have clear patterns of communication with them (Patterson, 2008). Authoritative parenting has consistently been linked to prosocial behaviors in adolescents (Eisenberg, Morris, McDaniel,

& Spinrad, 2009), more psychosocially mature behavior (Steinberg, 2001), and a lower likelihood of being involved in delinquent or other problematic behaviors (Collins & Steinberg, 2006). Similar to authoritative parents, authoritarian parents are high in demandingness, but they are lower in responsiveness. Obedience is expected, and generally few explanations for parental rules and discipline practices are offered. Lastly, Baumrind defined a permissive parenting style, which is low in demandingness and high in responsiveness. Permissive parents may be more focused on being their child's friends than on disciplining them; they tend to impose very few rules and demands, avoid punishing their child, and may be seen as very tolerant (Wicks-Nelson & Israel, 2009).

Maccoby and Martin (1983) created a fourth parenting category entitled neglectful parenting. This classification incorporates Baumrind's (1991) global dimensions, as neglectful parenting is low in demandingness and low in responsiveness. This parenting style is characterized by parents having little involvement in their child's life and providing their children with little time, attention, or emotional commitment (Wicks-Nelson & Israel, 2009). In addition to creating this fourth dimension, Maccoby (1992) believed that parents had the greatest influence over child outcomes. Through their actions and behaviors, parents could ultimately determine their child's outcomes. This traditional viewpoint of a top down orientation has now been examined from a more interactive or transactional perspective (Sameroff, 2009). However, it can still be argued that parents have a great deal of influence over their child's behaviors and outcomes.

While research indicates that authoritative parenting promotes the positive outcomes in children, these results stay consistent in adolescence as well. Numerous studies have demonstrated the importance of finding a balance of demandingness and responsiveness.

When one of these dimensions is out of balance, problematic outcomes can occur. Parenting is seen as multidimensional, but there can be a great deal of variation within each construct of demandingness and responsiveness (Holmbeck et al., 1995). However, the parenting styles developed by Baumrind (1991) and Maccoby and Martin (1983) provide researchers with a foundation of two dimensions of parenting (i.e., demandingness and responsiveness) that have repeatedly been shown to predict specific child and adolescent outcomes.

Although parenting styles theory is a commonly used framework within the literature on parenting, research supporting this theory was primarily derived from European, middle class samples, and may not be applicable to the same degree for families representing racial/ethnic minorities (Darling & Steinberg, 1993). Holden (2010) suggested that families representing racial/ethnic minorities might face racism, prejudice, and discrimination, maintain traditional cultural beliefs, and theorized that these factors may foster different parenting styles and behaviors. Baumrind (1987) proposed a “traditional parenting style,” which places a strong value on parental authority, respect, loyalty, and obedience, and acceptance of parental rules and decisions (Julian, McKenry & McKelvey, 1994; Mulvaney & Morrissey, 2011; Reis, 1993). Traditional parenting style reflects a combination of high responsiveness and high demandingness; however the aspects of demandingness represented are not synonymous to those found within the authoritative parenting style. Compliance with parental rules and decisions is expected without negotiation based on cultural beliefs regarding parents’ inherent authority (Baumrind, 1987).

Steinberg (2008) noted that African American, Latino, and Asian American parents might be more often classified as using authoritarian versus authoritative parenting. Among these racial/ethnic groups, some studies show that authoritarian parenting was not associated

with negative outcomes (Garcia Coll, Meyer, & Brillon, 1995). For example, Baumrind (1991) found that while authoritarian parenting was associated with more fearful behavior among European American children, this type of parenting was linked with more assertive behaviors and independence in African American children. Baumrind believed that African American children might not perceive authoritarian parenting behaviors as strict, but rather as nurturing and displaying self-sufficiency (Baumrind, 1972). Other studies have found that authoritative parenting is not associated as strongly with academic achievement in Asian American and African American children as compared to European American children (e.g., Steinberg, Mounts, Lamborn, & Dornbusch, 1991). Overall, the differences among racial/ethnic groups in terms of the effectiveness of specific parenting styles suggest that race/ethnicity is an important consideration when examining parenting styles theory. It is also important to note that a traditional parenting style may more accurately capture the nuances of parenting among families representing racial/ethnic minorities.

The present study addresses the two global dimensions presented within parenting styles theory (i.e., responsiveness and demandingness), and examines specific aspects of within each dimension. For example, parental monitoring behaviors, such as parental control and solicitation, represent aspects of demandingness. Additionally, parental acceptance reflects an aspect of responsiveness. Both parental monitoring behaviors and parental acceptance will be discussed in more detail in subsequent sections; however, parenting styles theory (Baumrind, 1980; 1991; Maccoby & Martin, 1983) lays the foundation and global dimensions for the parenting components in the current study. Overall, it is important to consider these specific parenting dimensions and how they can influence and prevent externalizing behaviors in adolescents.

Attachment Theory. In addition to the parenting styles theory, attachment theory is important to consider when examining parent-adolescent relationships. Attachments formed early in life continue to guide child, adolescent and adult development, as well as involvement in externalizing behavior outcomes (Gavazzi, 2011). From infancy and early childhood, individuals develop strategies and methods to understand and cope with their caregiver's behaviors. Over time, children internalize these representations and create internal working models of themselves and others. For example, those who feel that they do not matter to a caregiver may be insecurely attached, form a negative internal working model (Ainsworth & Bowlby, 1991; Scott, Briskman, Woolgar, Humayun, & O'Connor, 2011), and be more susceptible to problematic outcomes (Elliott, 2009; Kobak, Zajac, & Smith, 2009). A lack of secure attachments in adolescence has been linked to antisocial and externalizing behaviors (Barber & Olson, 1997; Pettit, Laird, Dodge, Bates, & Criss, 2001). However, when children and adolescents feel support and security from their parents, their self-image is more likely to be positive, which can buffer these individuals from externalizing outcomes (McNeely & Barber, 2010).

To clarify, attachment theory proposes that individuals develop a unique attachment style according to their interpersonal experiences with their caregivers (Ainsworth & Bowlby, 1991; Bowlby, 1980). John Bowlby's theory on attachment highlights that in ideal situations, children develop warm, close and consistent relationships with their primary caregivers (Bretherton, 1992). Bowlby developed this theory believing that caregivers should help their child become independent and competent, while the child still knows that their parent is there for security and protection. With acceptance, approval, responsiveness and warmth, the child knows that they are loved and respected. The child is therefore able to

successfully become more autonomous (Bowlby, 1980). The role of attachment in promoting autonomy develops early in childhood but continues throughout development.

There is an abundance of research linking attachment to adult outcomes, such as with mental health, work behaviors and satisfaction, and intimate relationships (Scott et al., 2011). However, relatively fewer studies have examined the role attachment plays in adolescence. For example, Kobak et al. (2009) theorized that representations of attachment form early in development. Internal working models of attachment are seen as personality traits that are enduring and shape adjustment in adolescence. On the other hand, Fraley (2002) believed that representations of attachment in adolescence are an indication of current parenting. As the parent-adolescent relationship changes in adolescence, the representations of attachment in adolescence also adjust. Therefore, adolescence may be seen as a time for individuals to revise their internal working models. Adolescents may be able to understand relationships differently and reflect on past and current relationships due to their increased abilities to understand different perspectives (Boykin McElhaney, Allen, Stephenson, & Hare, 2009).

Scott et al. (2011) proposed that while warm and involved parenting behaviors provide a sense of security for children, adolescents experience increased behavioral autonomy, resulting in participation in activities, often with peers, that are beyond the direct influence of their parents. Thus, adolescents may not be able to depend on their parents as readily as they could in childhood. Adolescents also tend to be more dependent on their peers for emotional and instrumental support (Boykin McElhaney et al., 2009). However, most adolescents want and need to maintain the “realistic sense that they can turn to parents in time of need” (Scott et al., 2011, p. 1053). It has been proposed that specific parenting

behaviors, such as warmth and parental monitoring may be essential in establishing a secure attachment in adolescence (Kerns, Aspelmeier, Gentzler, & Grabill, 2001; Scott et al., 2011).

Therefore, while there are many components of attachment theory, the present study focused on adolescents' perceptions of parental acceptance. Parental acceptance can be seen as a component of responsiveness, which in combination with high demandingness is beneficial to the adolescent (Baumrind, 1980). Additionally, parental acceptance may promote positive psychological adjustment (e.g., Hale, VanderWalk, Akse, & Meeus, 2007), as adolescents with a close, warm and accepting parent-adolescent relationship tend to be well adjusted (Vazsonyi & Belliston, 2006). Not only is acceptance an important component of attachment theory, it can be examined as a specific and distinctive parenting variable that impacts the parent-adolescent relationship, as well as adolescent outcomes. It has been suggested that a combination of parental monitoring and secure attachments results in positive adolescent outcomes (Boykin McElhaney et al., 2009). Overall, a warm, responsive and accepting parent-adolescent relationship is important for children to successfully transition into adolescence, which is suggested by both attachment theory and parenting styles theory (Baumrind, 1980; Bowlby, 1980).

Family Systems Theory. The majority of early theoretical models highlight that parenting practices and problematic outcomes are casually linked (e.g. Reid & Patterson, 1989; Snyder & Patterson, 1987). In other words, parent effects were seen as the primary influence on child and adolescent outcomes. Though parenting styles theory and attachment theory are two of the most researched theories in parenting, they have a top down orientation. Researchers highlight the importance of examining the parent-child relationship from an interactional and transactional perspective (Kerr, Stattin, & Engels, 2008; Sameroff, 2009),

and Family Systems Theory emerged from this perspective (e.g. Bowen, 1974). This theory not only describes the interactive nature of each family member's influence on the others, it also explains reciprocal interactions (Gavazzi, 2011; Minuchin, 1985). From this perspective, researchers highlight that children influence their parents' behaviors just as much as parents' behaviors influences children. The Family Systems perspective represents families as transaction, dynamic, and plastic. Each unit (or family member) influences each other reciprocally. Environmental stressors and individual development may influence family changes, and it is easy to see how an individual entering adolescence can significantly influence family dynamics (Feldman, 2008).

From this perspective, researchers are beginning to examine the bidirectional nature of parent-child relationships and how parents and children each influence the other (e.g. Albrecht, Galambos, & Jansson, 2007). Kerr & Stattin (2003) suggested that in some cases, parenting might be more reactive to adolescent behaviors than proactive. For example, adolescents may hold the key to parental knowledge through child disclosure. Kerr et al. (2008) suggested that adolescents actively pick and choose what information they want their parents to know. Therefore, child disclosure may be a key element in understanding how both adolescents and parents can influence adolescent outcomes. Bowen (1974) described the family system as having circular patterns, rather than linear, and thus the reciprocal effects of parent-adolescent interactions represent important influences on adolescent outcomes (Hughes & Gullone, 2007).

Child disclosure emerges as a factor that strongly influences the parent-adolescent relationship (e.g., Kerr & Stattin, 2000). Researchers suggest that child disclosure is the principal source of parental knowledge, and that it is also a strong predictor of adolescent

adjustment (Frijns, Keijsers, Branje, & Meeus, 2010). For example, child disclosure has repeatedly been associated with lower frequencies of delinquent behavior (Kerr et al., 2010; Kerr & Stattin, 2000). The relevance of child disclosure is seen within the theoretical framework of both parenting styles theory and attachment theory. For example, open communication (i.e., disclosure) may create positive interactions that support adaptive parent-adolescent relationships (Keijsers et al., 2010b).

In summary, parenting styles theory, attachment theory, and family systems theory together help to explain the parent and child behaviors that facilitate a healthy parent-child relationship in childhood and adolescence. Although adolescent development may bring significant changes to the parent-child relationship, authoritative and traditional parenting styles, and acceptance with secure attachments and open communication (i.e., child disclosure) may promote positive adjustment. As adolescents are struggling to form their identities and parents are adapting to changes in the parent-adolescent relationship, these theoretical frames assist researchers in learning what behaviors and traits are the needed to maintain a positive parent-child relationship.

Parenting in African American Families

This section reviews the literature on the parent-adolescent relationships in African American families. First, the under-representation of African American families in research on this topic is discussed. Within the existing literature, the disproportionate representation of low-income African American families living in inner-city contexts will be addressed. More generally, this section also includes an examination of the ways in which environmental context may influence parenting strategies and behaviors. Next, traditional parenting style and cultural attitudes, values, and beliefs will be discussed in terms of how they may

influence parenting behaviors. Finally, components of parenting styles theory and attachment theory will be examined, along with the literature on specific parenting behaviors that are associated with positive outcomes for African American adolescents.

Most studies of parental monitoring (e.g., parental control and solicitation) and acceptance have focused on European or European American families (e.g., Baumrind, 1972; Frijns et al., 2010; Soenens et al., 2006; Vieno et al., 2009), and relatively fewer on African American families (e.g., Brody, Dorsey, Forehand, & Armistead, 2002; Pettit, Bates, & Dodge, 1993). Studies that do focus on African American families may be confounded by a high representation of families with low socio-economic status who live in inner-city contexts (e.g., Garcia Coll et al., 1995). Several researchers have begun examining African American families in living in different contexts. For example, Brody and Flor (1997) and Brody et al. (2002) have examined African American families living in rural areas, and Smetana, Crean & Daddis (2002; Smetana & Gaines, 1999) examined middle-class African American adolescents. However, as Smetana et al. (2002) point out, more research is necessary in diverse contexts and with families representing varying levels of socio-economic status as the majority of research remains disproportioned.

Lerner's (2004) developmental systems perspective highlights that context has an important influence on adolescents' development. Not only are environmental contexts such as one's neighborhood, school, and community influential, the family context can also greatly impact adolescent/parent behaviors. The dynamics, relationships, and interactions within the family are just a few influences that can impact development. Contextual factors and family members reciprocally influence one another. These dynamic interactions make up

the developmental systems perspective (Lerner, 2004), and indicate the importance of examining the contextual influences within research samples.

For example, neighborhoods characterized by high levels of crime and violence may influence parental action and control for the protection of their child. African American families are disproportionately represented in low-income neighborhoods, and it has been suggested that parents living in these contexts may be seen as more strict and firm stemming from the need to protect their child from potential dangers (Young, 1974). In support of this premise, higher levels of parental monitoring have been linked with fewer problematic outcomes for adolescents included in several samples of African American families living in low-income neighborhoods (Brody et al., 2002; Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000) and inner-city contexts (Elmore & Gaylord-Harden, 2013; Pittman & Chase-Lansdale, 2001).

African American families and those representing racial/ethnic minorities may face the challenges of discrimination and racism (Holden, 2010; McAdoo, 2002), and teach their children how to deal with these experiences (Coll & Pachter, 2002). African American families may also feel a sense of discontinuity between traditional cultural beliefs and those of the mainstream culture (Nobles, 2007). Parents may feel the need to emphasize the beliefs of their culture, and enforce cultural values and practices (Choi, Kim, Kim, & Park, 2013). In summary, these contextual and environmental influences may be important factors that impact the parenting behaviors of African American families.

Theories on traditional parenting in African American families have also emerged in the literature, and Baumrind's (1972) original parenting styles do not seem to fully capture traditional parenting dynamics (Baumrind, 1972; Collins & Steinberg, 2006; Garcia Coll et

al., 1995). The theory of traditional parenting emerged as being potentially relevant for families representing ethnic/racial minorities (Baumrind, 1987; Julian et al., 1994; Mulvaney & Morrissey, 2011; Reis, 1993). This theory places value on parental authority and obedience, as well as parental acceptance, and thus is characterized by a high level of demandingness and responsiveness. However, as mentioned previously, high demandingness as reflected in traditional parenting style is not synonymous with high demandingness in authoritarian parenting style. Instead, cultural values and beliefs emerge as strong influences on parenting behaviors, such as the inherent authority of parental role (Mulvaney & Morrissey, 2011).

Researchers have examined traditional parenting style within African American families, and findings highlighted that this is the most typical parenting style (Lamborn, Mounts, Steinberg, & Dornbush, 1991; McWayne, Owsianik, Green, & Fantuzzo, 2008; Randolph, 1995). Nobles (2007) notes that African American families tend to place a strong value on family, community, belongingness, and respect. Parents may use more direct forms of discipline and control, be stricter, and emphasize obedience (Brody & Flor, 1997; Garcia Coll et al., 1995). Mothers felt that expectations for obedience and respect would increase school achievement and promote positive child and adolescent outcomes (Lamborn et al., 1991; McWayne et al., 2008; Randolph, 1995), and these factors have been linked to improved adolescent outcomes (Peters, 2007). Cauce, Hiraga, Graves, and Gonzales (1996) theorized that African American parents use traditional parenting behaviors with hopes that their children will grow up self-reliant and independent, while still maintaining their loyalty and respect to their family and their culture. In a study of ethnically diverse families, Smetana and Gaines (1999) found that European American children showed less respectful

behavior towards their mothers and other authority figures as compared to Latino and African American children. These researchers suggested that based on cultural traditions and traditional parenting behaviors, Latino and African American children grow up placing a strong value on respect towards adults.

While parent-driven monitoring behaviors such as control and solicitation may be relevant in African American families, the literature suggests that parental acceptance is also an important factor in the parent-child relationship (Veneziano, 2000; Zimmerman et al., 2000). Mulvaney and Morrissey (2011) noted that the combination of parental control and acceptance might be prevalent in African American families and benefit children and adolescents (e.g., Deater-Deckard & Dodge, 1997; Deater-Deckard et al., 2011; Lowe & Dotterer, 2013; Smetana et al., 2002; Steinberg et al., 1991). For example, the combination of strict discipline and parental acceptance in African American families predicted fewer externalizing outcomes in adolescence (Pettit et al., 1993). In a study of 208 predominantly African American middle school students from the Midwestern United States, increased levels of parental monitoring and warmth had protective effects in areas of academic and problem behaviors in school. In another study, Smetana et al. (2002) focused on 86 middle class, African American early adolescents and their mothers. Results of this study showed that increased behavioral control was associated with lower involvement in externalizing behaviors.

Additionally, Elmore and Gaylord-Harden (2013) found that adolescent feelings of parental acceptance were the most important factors in predicting lower frequencies of externalizing behaviors. In a sample of 150 African American parents who were classified as lower middle or lower class in a large Midwestern city, a high level of parental acceptance

protected youth from problematic behaviors. Zimmerman et al. (2000) also found that parental acceptance was predictive of fewer externalizing behaviors in African American youth, including delinquency. Additionally, Veneziano (2000) found that across various levels of socio-economic status, perceptions of increased parental acceptance were positively associated with child adjustment. Lastly, Brody et al. (2002) focused on a sample of 277 African American adolescents (ages 7 to 15) and their mothers, all of who were single-mothers. Participants in this study had low SES and lived in a southeastern rural area of the United States. Study findings indicated that higher levels of parental acceptance and increased parental monitoring by mothers were linked to better school performance and adolescent self-regulation.

This literature highlights relevant elements of parenting that may be prevalent in African American families. A combination of high levels of parental monitoring and acceptance was found to be beneficial to African American youth in several studies. Research on African American families in areas examining parental monitoring, parental acceptance and externalizing outcomes is minimal, and represents an important direction for future research.

The Protective Role of Parental Factors

While a variety of parenting and adolescent behaviors can be explained by the previously described theoretical frameworks, parental monitoring emerges as a “common denominator” that encompasses the demandingness dimension of parenting styles theory (Baumrind, 1972) and traditional parenting style (Dishion & McMahon, 1998, p. 63; Mulvaney & Morrissey, 2011). Parental monitoring offers some insight into the quality of the parent-child relationship, and it is defined as “a set of correlated parenting behaviors

involving attention to and tracking of the child's whereabouts, activities and adaptations" (Dishion & McMahon, 1998, p. 61). Monitoring needs to be altered as children transition into adolescence to account for autonomy and independence (Holmbeck et al., 1995).

In this section, literature on the various dimensions of parental monitoring will be addressed. First, the protective role of parental knowledge will be discussed, followed by the protective role of child disclosure. The parent-driven monitoring strategies of parental control and solicitation will also be examined. Finally, the literature on parental acceptance will be discussed; specifically looking at how parental acceptance works in combination with parental control and parental solicitation to promote child disclosure and lower likelihoods of externalizing behaviors.

Parental knowledge and monitoring strategies. Parental knowledge reflects parents' understanding of their children's whereabouts, behaviors, and activities (Kerr & Stattin, 2000), and this construct has repeatedly been shown to promote positive adjustment and lessen the likelihood of externalizing behaviors in adolescence (Racz & McMahon, 2011). It represents the product of parental attempts to gain information from their children, to set behavioral limits, and child disclosure of information to parents. In contrast, Stattin and Kerr (2000) defined parental monitoring as parents' active attempts to keep an eye on adolescents and to know where they are going, what they are doing, and whom they are with. Stattin and Kerr suggest that many existing measures of parental monitoring assess parental knowledge instead of measuring parents' active attempts at monitoring children's behavior. In other words, these measures did not assess *how* parents come to know about their child's behaviors and activities (Fletcher et al., 2004; Kerr & Stattin, 2000; Stattin & Kerr, 2000).

In a review of this literature, Racz and McMahon (2011) found that of the 47 studies on parental knowledge and monitoring, 26 specifically examined parental knowledge. Of these 26 studies, about half used the term “parental monitoring” to describe parental knowledge. This suggests that measures of parental monitoring and knowledge must be examined carefully in order to understand how these constructs are being conceptualized and operationalized (Racz & McMahon, 2011). In 2000, Stattin and Kerr developed the Parenting Practices Scale that assesses how parents monitor and gain knowledge about their children, and includes the following constructs: parental control, parental solicitation, and child disclosure (Kerr & Stattin, 2000; Stattin & Kerr, 2000). Thus, parental knowledge may result from active parental monitoring strategies, such as parent-driven processes of control and solicitation, and/or through the child-driven process of disclosure. More research is necessary to fully understand how constructs of parental monitoring are connected, how they influence parental knowledge, and how they work together to predict adolescent outcomes.

Parental knowledge and externalizing behaviors. The protective influence of parental knowledge on externalizing behaviors is important given the negative outcomes associated with these behaviors and their increased frequency in adolescence (e.g., CDC: Youth Risk Behavior Surveillance Survey, 2011). A number of studies demonstrate negative associations between parental knowledge and externalizing behaviors (e.g., Kerr & Stattin, 2000; Loeber & Stouthammer-Loeber, 1987; Racz & McMahon, 2011; Stattin & Kerr, 2000), although most utilize composite measures of externalizing behaviors. Thus, specific externalizing behaviors are rarely teased apart. For example, some researchers describe composites such as “antisocial behavior,” and do not specify which components of antisocial behavior were linked to parental knowledge (Bacchini, Miranda, & Affuso, 2011; Laird et

al., 2010; Vieno et al., 2009). In this section, literature on concurrent and prospective relations between parental knowledge and both composite and specific measures of externalizing behaviors will be examined.

Cross-sectional and longitudinal studies focusing on adolescent samples demonstrate significant negative relations between parental knowledge and composite measures of externalizing behaviors (Bacchini et al., 2011; Cottrell et al., 2007; Fletcher et al., 2004; Kerr & Stattin, 2000; Racz & McMahon, 2011; Vieno et al., 2009). For example, Vieno et al. (2009) found that higher levels of parental knowledge were associated with fewer antisocial behaviors in a sample of 840 Italian adolescents. Cottrell et al. (2007) also found that lower levels of parental knowledge were related to higher frequencies of risk behaviors among adolescents including smoking tobacco, drug and alcohol use, physical fighting, and truancy. In a prospective study of 2,568 adolescents (ages 14 to 18), higher levels of parental knowledge predicted fewer problem behaviors one academic school year later, as assessed by a composite measure of vandalism, misconduct, and delinquency (Fletcher et al., 2004). Higher levels of parental knowledge also predicted lower frequencies of problem behavior in a sample of 2,941 Canadian high school students across a four-year time span (Willoughby & Hamza, 2011). Overall, these studies indicate that not only does parental knowledge co-vary with externalizing behaviors, but also that parental knowledge predicts subsequent changes in the frequency of these outcomes.

The majority of studies examining the relations between parental knowledge and specific externalizing outcomes focus on delinquent behaviors (e.g., Frijns et al., 2010; Keijsers et al., 2009; Kerr et al., 2010). For example, in one cross-sectional study of 690 Belgian youth ages 15 to 21, parental knowledge (both mother- and father-report) was

negatively associated with delinquency and affiliation with delinquent friends (Soenens et al., 2006). Higher levels of parental knowledge were also associated with lower frequencies of delinquent behavior in a sample of 205 African American fifth and eighth graders (Richards, Miller, O'Donnell, Wasserman, & Colder, 2004). Multi-informant prospective studies underscored the inverse relation between parental knowledge and the subsequent frequency of delinquent behaviors (Laird, Pettit, Bates, & Dodge, 2003; Pettit et al., 2001). In addition, in a longitudinal study that included 3,545 adolescents and their mothers (including European American, African American and Latino families), higher levels of parental knowledge in early adolescence predicted lower rates of delinquent behaviors in later adolescence (Lahey, Van Hulle, D'Onofrio, Rogers, & Waldman, 2008). Lastly, lower levels of parental knowledge were found to place adolescents at-risk for juvenile delinquency (Patterson, 1982; Patterson, Reid, & Dishion, 1992) and conduct problems (Kerr & Stattin, 2000; Stattin & Kerr, 2000). Thus, lower levels of parental knowledge have significant implications for engagement in delinquent behaviors which unfortunately can lead to physical injury, involvement with the juvenile justice system, and school disengagement (Moffitt & Caspi, 2001).

Although studies document inverse relations between parental knowledge and delinquent behaviors (e.g., Frijns et al., 2010), relatively little research has considered associations between parental knowledge and aggression. Some researchers combine aggression and delinquency into a composite measure, because these constructs are highly correlated (Farrington, 2009), but others suggest that they have different developmental pathways. For instance, aggressive behaviors tend to be more stable over time as compared to delinquent behaviors (Stranger, Achenbach, & Verhulst, 1997). Some differences exist in

risk factors for these constructs; for example, peer rejection was more strongly related to aggression, while associations with deviant peer groups were more strongly associated with delinquency in a sample of 168 adolescents (Barnow, Lucht, & Freyberger, 2005). Studies have also found differential relations between parental knowledge, and delinquency and aggression (Griffin, Botvin, Scheier, Diaz, & Miller, 2000; Reitz, Prinzie, Dekovic, & Buist, 2007). In a study of 457 adolescents, ages 13 and 14, living in the Netherlands, parental knowledge was negatively associated with both delinquency and aggression. However, over time, decreases in parental knowledge led to increases in delinquent but not aggressive behaviors (Reitz et al., 2007). A similar pattern of findings emerged in a study of 228 sixth graders (88% African American), in that increases in parental knowledge predicted less delinquency, but was not related to changes in aggression (Griffin et al., 2000). Researchers have suggested that aggression may be a more biologically or genetically driven trait, and thus the parent-child relationship may not impact aggression as strongly (Reitz et al., 2007). Also, aside from a few exceptions (e.g., Murray, Haynie, Howard, Cheng, & Simons-Morton, 2010), aggression is usually only examined in physical forms (i.e., the threat or actual use of physical aggression).

However, other studies have found significant associations between parental knowledge and aggressive behaviors (Gaertner et al., 2010; Murray et al., 2010; Orpinas, Murray, & Kelder, 1999; Simons-Morton, Hartos, & Haynie, 2004). For example, Gaertner and colleagues (2010) conducted a cross-sectional study that included 89 predominantly European American children, ranging in age from nine to twelve. They found that low levels of parental knowledge were related to higher frequencies of both relational (i.e., aggressive acts such as rumor spreading and gossip that are intended to harm the victim's social

relationships with others), and physical/verbal aggression. Also, in a concurrent study of 8,865 primarily Latino sixth, seventh, and eighth graders in urban Texas, Orpinas et al. (1999) found that higher levels of parental knowledge were related to lower levels of aggressive behavior. Longitudinal support has also been found for the inverse relation between parental knowledge and aggression. Among 209 African American sixth graders living in a low-income, inner-city context, high levels of parental knowledge predicted lower frequencies of both overt and relational aggression over the course of a school year (Murray et al., 2010). Finally, in a predominately European American sample of adolescents, positive parenting (which encompassed parental knowledge) was also associated with decreased levels of aggression over a two-year timeframe (Simons-Morton et al., 2004).

In comparison to literature on parental knowledge and delinquency, research on parental knowledge and aggression is minimal, and has shown mixed findings. However, there is some longitudinal support that parental knowledge predicts lower frequencies of adolescent aggression (e.g., Murray et al., 2010; Simons-Morton et al., 2004). More research on these constructs is needed in order to fully understand the link between parental knowledge and externalizing behaviors, including the separate constructs of delinquency and aggression. However, some research demonstrating the benefits of parental knowledge in decreasing the frequency of externalizing behaviors during adolescence is present in the literature, suggesting that increased parental knowledge can protect adolescents from externalizing outcomes, including delinquency, antisocial behaviors and aggressive behaviors (e.g., Griffin et al., 2000; Lahey et al., 2008; Murray et al., 2010; Richards et al., 2004). However, most research on parental knowledge and externalizing outcomes has been conducted with European and European American samples (e.g., Frijns et al., 2010; Kerr &

Stattin, 2000; Reitz et al., 2007; Vieno et al., 2009). In summary, more research is needed with ethnically diverse samples to examine relations between parental knowledge and specific constructs that include aggression and delinquency.

Parenting practices that promote parental knowledge. As relations between higher levels of parental knowledge and lower frequencies of externalizing behaviors are well established, Kerr and Stattin (2000; Stattin & Kerr, 2000) underscore the importance of identifying parental monitoring strategies that may enhance parental knowledge. These authors distinguish three possible methods to gain parental knowledge: parental control, parental solicitation, and child disclosure. Parental control and solicitation are parent-driven processes, whereas child disclosure is child-driven, defining both parents and children as active controllers of parental knowledge. As discussed previously, higher levels of parental knowledge consistently predicts fewer externalizing behaviors (Bacchini et al., 2011; Cottrell et al., 2007; Fletcher et al., 2004; Kerr & Stattin, 2000; Racz & McMahon, 2011; Vieno et al., 2009). Therefore, it is important to discuss parent and child behaviors that may promote more parental knowledge.

The influence of child disclosure. In studies of adolescents that tested relations between parental control, parental solicitation, child disclosure, and parental knowledge, the strongest positive relation was between child disclosure and parental knowledge (Kerr et al., 2010; Stattin & Kerr, 2000). The research demonstrating this link has been replicated numerous times, suggesting that child disclosure is a strong predictor of parental knowledge, more so than active parent-driven behaviors, such as parental control and solicitation (Eaton et al., 2009; Keijsers et al., 2010b; Kerr & Stattin, 2000; Racz & McMahon, 2011; Stattin & Kerr, 2000).

Child disclosure can be conceptualized as a child-driven aspect of parental monitoring, especially in adolescence, and is defined as children's spontaneous and voluntary disclosure of information to their parents (Stattin & Kerr, 2000). Positive relations between child disclosure and parental knowledge have been demonstrated in a number of cross-sectional studies (Eaton et al., 2009; Kerr & Stattin, 2000; Padilla-Walker et al., 2011; Soenens et al., 2006; Stattin & Kerr, 2000; Vieno et al., 2009). For example, in a study of 575 adolescents and their mothers (48% European American; 43% Asian American), child disclosure was more strongly related to parental knowledge as compared to parental solicitation and control (Eaton et al., 2009). Soenens et al. (2006) found similar concurrent relations among these variables in a sample of 609 Belgian adolescents. Finally, higher levels of child disclosure were associated with higher rates of parental knowledge in samples of Italian (Vieno et al., 2009) and European American adolescents (Padilla-Walker, 2011).

Support for child disclosure as a predictor of increased parental knowledge has also been found in several longitudinal studies (Blodgett-Salafia, Gondoli, & Grundy, 2009; Hamza & Willoughby, 2011; Kerr et al., 2010; Willoughby & Hamza, 2011). In a study of 131 middle school students (95% European American), higher levels of child disclosure in seventh grade predicted increased parental knowledge in eighth grade (Blodgett-Salafia et al., 2009). Kerr et al. (2010) also found that child disclosure was the strongest predictor of parental knowledge across a two-year timeframe among Swedish seventh and eighth graders. Higher levels of child disclosure also resulted in subsequent increases in parental knowledge a year later for Canadian adolescents (Hamza & Willoughby, 2011; Willoughby & Hamza, 2011).

In addition to child disclosure directly informing parental knowledge, some studies

have found main effects between child disclosure and externalizing behaviors (Fletcher et al., 2004; Frijns et al., 2010; Kerr & Stattin, 2000). For example, two studies examined relations between child disclosure and delinquency utilizing a sample of 309 Dutch families (Frijns et al., 2010; Keijsers et al., 2009). In the first study, Frijns et al. (2010) revealed that intentionally not disclosing information to parents predicted subsequent increases in delinquent behaviors. In another study, Keijsers et al. (2009) found that there was a gradual decrease in the amount of self-disclosure by adolescents to their parents. This decrease in self-disclosure (both mother- and adolescent-reported) led to subsequent increases in delinquent behaviors over four years. In a study of Swedish seventh and eighth graders, Kerr et al. (2010) also found that the less information adolescents disclosed to their parents, the more delinquent behavior they engaged in over a two-year period. Finally, among 218 early adolescents in fifth and sixth grade, higher levels of child disclosure were associated with fewer incidences of antisocial and rule-breaking behaviors (Laird & Marrero, 2010). Overall, these studies highlight the protective role of child disclosure in decreasing externalizing behaviors among adolescents (e.g., Frijns et al., 2010).

Based on the child-driven nature of self-disclosure, youth have power over what information they choose to share with their parents. Almost all adolescents report some forms of non-disclosure to parents for reasons including fear of parents' response to certain information, fear of consequences and punishment, embarrassment, and emotional reasons (Darling, Cumsille, Caldwell, & Dowdy, 2006; Smetana, 2006; Smetana & Metzger, 2008). Many adolescents are aware that their parents want to know what is going on in their lives, but may feel that they are not obligated to share that information (Frijns et al., 2005; Smetana et al., 2006). As adolescents develop increasing cognitive abilities and capacity for self-

regulation, expectations also increase for self-control over their actions, behaviors, and choices (Smetana, 1988). Thus, decreased self-disclosure to parents may reflect attempts to gain control and independence in their lives. However, based on the research that demonstrates positive relations between child disclosure and parental knowledge, and negative associations between this construct and externalizing behaviors, it is critical to better understand parental factors that may increase self-disclosure by adolescents to parents.

In conclusion, child disclosure is a significant predictor of increased parental knowledge (e.g., Keijsers, Branje, Frijns, Finkenauer, & Meeus, 2010a; Keijsers et al., 2009, 2010b; Vieno et al., 2009; Willoughby & Hamza, 2011). Several studies have identified parenting processes including monitoring strategies that promote self-disclosure among adolescents, and parental knowledge through this behavior. For example, research has found that parent-driven monitoring practices of control and solicitation may encourage more child disclosure (e.g., Fletcher et al., 2004; Hamza & Willoughby, 2011). Other researchers found parental responsiveness and closeness to be positively associated with child disclosure (Smetana, 2008; Soenens et al., 2006; Vieno et al., 2009). Kerr and Stattin (2000) hypothesized that responding to disclosure in a positive way can promote future disclosure; in other words, if the child feels comfortable disclosing to the parent, then they probably will be more likely to disclose again. Parental warmth, responsiveness, and closeness, all of which are parenting behaviors that fit under the concept of parental acceptance, may encourage more disclosure (Tilton-Weaver & Marshall, 2008). Attachment theory and parenting styles theories suggest that a combination of high demandingness, which may include behaviors such as parental control and solicitation, and high responsiveness, such as parental acceptance, may be the most beneficial to African American adolescents (Deater-

Deckard & Dodge, 1997; Lowe & Dotterer, 2013; Smetana et al., 2002; Steinberg et al., 1991) Also, maintaining communicative, trusting and open parent-child relationships promote the most positive outcomes for adolescents (Keijsers et al., 2010b). Therefore, encouraging and promoting child disclosure appears to be imperative and a central component of parenting adolescents.

Thus, it is also important to examine these parent-driven behaviors and the pathways by which they may increase parental knowledge and decrease the likelihood of externalizing behaviors in adolescence (e.g., Bacchini et al., 2011; Cottrell et al., 2007; Fletcher et al., 2004; Frijns et al., 2010; Kerr & Stattin, 2000; Racz & McMahon, 2011; Vieno et al., 2009).

The influence of parental control. Parents exercise parental control when they place restrictions on their child's activities and behaviors, enforce and maintain rules, and oversee their child's behaviors and experiences (Stattin & Kerr, 2000). This parenting behavior can be seen as parent-driven, as parents actively engage in these behaviors to monitor their children. In the literature, two global forms of parental control are distinguished: psychological control and behavioral control. Psychological control occurs when parents use love withdrawal, guilt induction and harsh criticisms to control their child's future behaviors. Research has indicated that this type of control can inhibit autonomy, and children may lack initiative and self-esteem if used in great amounts (e.g., Barber, Olsen, & Shagle, 1994; Herman, Dornbusch, Herron, & Herting, 1997). Behavioral control is a parent's active attempt to structure or regulate their child's behavior through monitoring (Barber et al., 1994). It is important to note that Stattin and Kerr (2000; Kerr & Stattin, 2000) focus solely on behavioral control when examining active parent-driven behaviors, as behavioral control shapes parent's discipline and supervision. Thus, behavioral control and psychological

control are two different constructs, and the focus of the current study is on behavioral control.

The literature on relations between parental control and parental knowledge generally indicates that higher levels of parental control are associated with higher levels of parental knowledge (Fletcher et al., 2004; Soenens et al., 2006; Stattin & Kerr, 2000; Vieno et al., 2009). For example, in a study of 2,568 adolescents in the United States (66% European American), Fletcher et al. (2004) found that high levels of parental control predicted increased parental knowledge over a one-year timeframe. Additionally, in two studies of Canadian high school students, higher levels of parental control led to subsequent increases in parental knowledge over a two-year timeframe (Hamza & Willoughby, 2011; Willoughby & Hamza, 2011).

Research on relations between parental control and child disclosure reveals mixed findings. Some cross-sectional studies have found positive associations between parental control and child disclosure (e.g., Soenens et al., 2006; Vieno et al., 2006). However, significant longitudinal relations have not been found between parental control and child disclosure (Hamza & Willoughby, 2011; Kerr et al., 2010; Willoughby & Hamza, 2011). For example, in a longitudinal study of Canadian adolescents, parental control did not predict increases in child disclosure over a one-year time period (Hamza & Willoughby, 2011; Willoughby & Hamza, 2011). Also, Kerr et al. (2010) found that parental control did not elicit more child disclosure one year later among a sample of Swedish adolescents. However, one limitation of existing studies examining concurrent and prospective relations between parental control and child disclosure is that they primarily focus on European and Canadian samples. Based on the influence of culture on parenting styles, more research is needed to

examine the pattern of relations among these variables for African American and other families representing racial/ethnic minorities. Within African American families, heightened parental control may elicit more child disclosure, and ultimately, more parental knowledge, as parental control may represent a positive aspect of a traditional parenting style (e.g., Deater-Deckard & Dodge, 1997; Lowe & Dotterer, 2013; Smetana et al., 2002; Steinberg et al., 1991).

The influence of parental solicitation. The second parent-driven monitoring behavior is parental solicitation. Parents may actively seek information about their child or adolescent by asking them directly, or by asking their friends and peers, both of which are considered parental solicitation (Stattin & Kerr, 2000). Through parental solicitation, parents are actively involved in the monitoring process with the goal of obtaining knowledge from or about their child (Hamza & Willoughby, 2011). Similar to parental control, parental solicitation may encourage more communication within the parent-child relationship (Collins, Gleason, & Sesma, 1997). Parental solicitation can be conceptualized under the dimensions of demandingness and responsiveness, as parental solicitation demonstrates active parental monitoring, while also fostering communication.

A few studies show that parental solicitation is associated with higher levels of parental knowledge (Padilla-Walker et al., 2011; Stattin & Kerr, 2000). Stattin and Kerr (2000) found that higher levels of parental solicitation were associated with higher levels of parental knowledge in Swedish youth. Additionally, among 500 families living in a large, Northwestern city in the United States, Padilla-Walker et al. (2011) found positive relations between higher levels of parental solicitation and parental knowledge. However, in one of the few longitudinal studies examining these relations, Hamza and Willoughby (2011) found that

high levels of parental solicitation predicted less parental knowledge in a sample of Canadian adolescents. The current literature on relations between parental solicitation and parental knowledge is sparse and inconclusive. Thus, more research, especially longitudinal studies, is needed to more fully understand relations between these constructs over time.

Several studies have examined relations between parental solicitation and child disclosure (Hamza & Willoughby, 2011; Padilla-Walker et al., 2011). In a cross-sectional study of 500 families from diverse ethnic backgrounds, higher levels of parental solicitation were associated with higher levels of child disclosure (Padilla-Walker et al., 2011). Hamza and Willoughby (2011) found that high levels of parental solicitation predicted child disclosure over a one-year time period in a sample of Canadian adolescents. In conclusion, research on relations between parental solicitation, child disclosure, and parental knowledge is much less substantive as compared to literature on parental control. Parental solicitation can be seen as an important component of the demandingness dimension according to parenting styles theory (Baumrind, 1972), and relations between these constructs need to be examined in further depth.

Relations between parental acceptance, parental control, and parental solicitation.

Parenting styles theory suggests that a combination of high demandingness, (i.e., parental control and solicitation), and high responsiveness (i.e., parental acceptance), is associated with positive outcomes for African American adolescents (Deater-Deckard & Dodge, 1997; Deater-Deckard et al., 2011; Lowe & Dotterer, 2013; Smetana et al., 2002; Steinberg et al., 1991). This combination of behaviors has also been positively related to child disclosure (e.g., Crouter & Head, 2002; Fagot, Luks, & Poe, 1995; Kerr & Stattin, 2000; Smetana & Metzger, 2008; Soenens et al., 2006; Vieno et al., 2009). Additionally, Kerr and Stattin

(2000) theorized that when parents respond to child disclosure in a positive way, this could promote future child disclosure; in other words, if the child feels comfortable disclosing to the parent, then they will be more likely to continue this pattern of behavior. Parental warmth, responsiveness, and closeness, all which are parenting behaviors that fit under the concept of parental acceptance, may encourage child disclosure (Tilton-Weaver & Marshall, 2008). More generally, encouraging and promoting child disclosure is important in fostering a positive parent-adolescent relationship.

Parental acceptance has been conceptualized a number of ways in the literature, including parental warmth, support, and responsiveness. The literature review will refer to all of these concepts underneath the umbrella term of parental acceptance. A number of studies reveal the protective nature of parental acceptance. For example, in a cross-sectional study of 668 adolescents (75% Latino, 25% African American) and their parents, child-reported perceptions of higher parental acceptance were associated with higher levels of child disclosure (Guilamo-Ramos, Jaccard, Dittus, & Bouris, 2006). Another cross-sectional study examined a sample of 276 primarily European American adolescents. In this study, Smetana et al. (2006) found that children's perceptions of higher parental acceptance were positively associated with more child disclosure, especially surrounding personal issues. Finally, other cross-sectional studies document positive relations between parental acceptance and child disclosure in European adolescents (Soenens et al., 2006; Vieno et al., 2009).

Longitudinal relations between parental acceptance and child disclosure have been found as well. Blodgett-Salafia et al. (2009) followed 131 early adolescents (95% European American) across three years. Results indicated that perceptions of high parental acceptance in sixth grade predicted higher levels of child disclosure in seventh grade, and more parental

knowledge in eighth grade. Another study found that perceptions of higher parental acceptance were predictive of more parent-adolescent communication and attachment two years later (Ho, 2004). Lastly, Hare, Marston and Allen (2011) examined 184 seventh and eighth graders (58% European American, 29% African American). They found that high levels of perceived maternal acceptance predicted improvements in emotional communication and child disclosure across a three-year period. Overall, these studies highlight the role of parental acceptance in enhancing child-parent relationships and supporting positive adjustment.

However, parental acceptance in combination with specific parental monitoring behaviors may further enhance parent-adolescent relationships and be related to positive adolescent outcomes. Social Control Theory (Elliott, 2009; Giordano, 2010) suggests that parents need to prevent problematic behaviors in adolescence through two methods: having a warm and responsive relationship characterized by positive attachment, and by monitoring and placing appropriate behavioral limits on adolescent activities. This premise is also supported by Parenting Styles Theory (Baumrind, 1972). Without the combination of strong attachment and parental monitoring, adolescents may be more likely to engage in delinquent or deviant activities (e.g., Giordano, 2010; Longmore, Manning, & Giordano, 2013).

While there have been mixed findings regarding the effect of high parental control and solicitation on child disclosure, the combination of parental acceptance with control and solicitation may increase levels of child disclosure. For example, Dishion and McMahon (1998) theorized that parental acceptance provides a framework for both effective parental monitoring and child disclosure. Kerr, Stattin and Ozdemir (2012) examined 978 Swedish youth in grades 4 through 12 every year for a total of five years. They found that a

combination of acceptance and active parental monitoring strategies was associated with increased levels of child disclosure, parental knowledge and parent-child communication. Laird and Marrero (2010) suggested that high levels of parental acceptance are a key component of the parent-child relationship in order to foster more child disclosure, which in turn enhances parental knowledge. Fletcher et al. (2004) also found in adolescents that a combination of parental control and parental acceptance predicted higher levels of parental knowledge, which in turn predicted fewer problematic behaviors. In general, parents who were rated as high in parental warmth by their adolescents were more knowledgeable, ultimately protecting their adolescents from problematic outcomes (Fletcher et al., 2004; Laird & Marrero, 2010; Kerr et al., 2012).

A better understanding of relations between combinations of parental control, solicitation and acceptance on child disclosure and parental knowledge is needed. However, evidence of direct effects between this combination of parenting behaviors and lower frequencies of problematic adolescent outcomes is more substantive. In a national survey of ethnically diverse adolescents, Amato and Fowler (2002) found that the combination of parental acceptance and parental monitoring predicted decreases in adolescent delinquency. Other studies also found that the combination of high levels of parental monitoring and acceptance had positive results with regard to adolescent adjustment (Gray & Steinberg, 1999; Keijsers et al., 2009; Kerr et al., 2012). For example, in a study of 8,700 high school students living in the United States, high levels of parental acceptance and behavioral control resulted in higher self-competence, academic success and self-esteem. Additionally, high levels of parental acceptance and behavioral control resulted in lower levels of internal distress and behavior problems, including deviant and antisocial behaviors (Gray &

Steinberg, 1999). In another study of 309 Dutch high school students, Keijsers et al. (2009) found that high levels of parental control and parental acceptance predicted fewer delinquent behaviors over a four-year time span. Kerr et al. (2012) examined 978 Swedish seventh and eighth graders across a two-year time span. They also found that high levels of warmth and behavioral control predicted healthy adjustment. In a sample of 302 African American adolescent girls, high levels of warmth and firm parental control predicted fewer delinquent behaviors and more academic success (Pittman & Chase-Lansdale, 2001). Finally, in a cross-sectional study of 70 fourth graders who were primarily African American, Caron, Weiss, Harris and Catron (2006) found that high levels of control and warmth predicted fewer externalizing outcomes (as assessed by a composite measure of delinquency and aggression).

In summary, parental acceptance is an important component that contributes to healthy parent-child relationships during adolescence. It enhances communication, allows for trusting and open relationships, and promotes positive parent-child interactions. While relations between parental acceptance and parental control on child disclosure have been demonstrated (e.g., Fletcher et al., 2004; Kerr et al., 2012), the potential moderating role of parental acceptance on relations between parental solicitation and control and child disclosure remains to be explored. Consistent with parenting styles theory, the combination of high levels of parental acceptance and high levels of parental control and solicitation may promote more child disclosure and subsequently more parental knowledge that will lessen the likelihood of adolescents engaging in externalizing behaviors. High levels of parental control and solicitation, and parental acceptance encompass a traditional parenting style, which is

shown in several studies to be beneficial to African American youth (Deater-Deckard & Dodge, 1997; Lowe & Dotterer, 2013; Smetana et al., 2002; Steinberg et al., 1991).

Putting it all together: Parental monitoring, parental acceptance and externalizing behaviors. Currently, only a few researchers have proposed more comprehensive models linking parental monitoring behaviors, parental acceptance, and externalizing outcomes. In a study of over 2,500 primarily European American adolescents living in the United States, Fletcher et al. (2004) tested a path model in which parental warmth, parental monitoring and parental control each predicted subsequent increases in parental knowledge. Parental knowledge also mediated relations between these parental behaviors, and substance use and delinquency. Although this study included aspects of parental monitoring within the model it is notable that neither parental solicitation or child disclosure were included. The sample was also comprised of primarily European American adolescents, leaving these relations under-explored within families representing racial/ethnic minorities.

Several other researchers have developed path models to examine the ways in which parental monitoring strategies may promote or deter child disclosure, and how child disclosure relates to parental knowledge and externalizing behaviors (e.g., Soenens et al., 2006; Vieno et al., 2009). In a sample of 690 Belgian adolescents ranging in age from 15 to 21, Soenens et al. (2006) found that child disclosure mediated relations between both parental control and responsiveness, and parental knowledge. In turn, higher levels of parental knowledge were associated with lower frequencies of problem behavior. Parental knowledge also mediated relations between child disclosure and these problem behaviors, including substance use, delinquency, and affiliations with friends who used substances or

engaged in delinquent behaviors. Similarly, in a study of 1,196 Italian adolescents ages 11 to 15, child disclosure mediated relations between parental control and closeness and parental knowledge (Vieno et al., 2009). These authors also found that, in turn, parental knowledge was negatively associated with antisocial behaviors, and that parental knowledge mediated relations between child disclosure and antisocial behaviors. Both of these cross-sectional studies supported the mediating role of child disclosure on relations between parental monitoring behaviors and parental acceptance, and parental knowledge. They also found that parental knowledge mediated relations between child disclosure and externalizing outcomes (Soenens et al., 2006; Vieno et al., 2009).

However, one key limitation of these studies is their cross-sectional nature. More longitudinal research is needed to better understand the roles of parental monitoring, parental acceptance, child disclosure, and parental knowledge in predicting adolescents' externalizing outcomes. Another limitation is that neither study with more comprehensive models included parental solicitation.

The Influence of Sex and Age

Differential relations may be seen between parental monitoring, parental acceptance, and externalizing behaviors based on sex and age. For example, Laird, Marrero, Melching, and Kuhn (2013) found both sex and age differences in the amount of child disclosure to parents. Over the course of three years (fifth through seventh grades), relations between child disclosure, secrecy, and antisocial behaviors (composite of drug/tobacco use, aggression, and delinquency) were examined among 218 adolescents (47% African American, 49% European American). Results indicated that levels of child disclosure to parents decreased significantly each year of school. Additionally, boys disclosed less information than girls. Lastly, findings

also showed that less disclosure predicted increased levels of antisocial behaviors among these adolescents over time. These results not only support the notion that child disclosure is important in protecting adolescents from externalizing behaviors, but they also suggest that age and sex differences need to be considered.

Sex has been specifically shown to affect parenting variables, such as parental knowledge and child disclosure. For example, several studies have found that girls are more likely to disclose information to their parents than boys (e.g., Crouter & Head, 2002; Keijsers et al., 2010a; Smetana et al., 2006; Yau, Tasopoulos-Chan & Smetana, 2009). In a cross-sectional study, Papini, Farmer, Clark, Micka, and Barnett (1990) studied 174 European American seventh and ninth graders. Results showed that females disclosed more information than males to their parents. Additionally, in a four-year longitudinal study, Keijsers et al. (2010a) found that girls were more likely than boys to disclose information to their parents, and girls keep fewer secrets when they felt more strongly connected and accepted by their parents. Consistent with this finding, parental knowledge is typically greater for parents of females as compared to males (Crouter & Head, 2007).

The few studies assessing sex differences in relations between parental monitoring, acceptance, child disclosure, and externalizing behaviors reveal mixed findings (Gorman-Smith & Loeber, 2005; Soenens et al., 2006; Vieno et al., 2009). For example, Vieno et al. (2009) found several sex differences in their model. First, a direct effect between higher levels parental control and lower levels of antisocial behavior were found for boys but not for girls, suggesting that boys may benefit from increased levels of parental control. Also, there was a significant direct relation between higher levels of parental acceptance and higher rates of parental knowledge for girls, but not for boys. While boys may uniquely benefit from

higher levels of parental control, these results also suggest that girls may benefit from higher levels of parental acceptance. However, in two other studies of European and European American adolescents that examined relations between parental monitoring behaviors, parental acceptance and externalizing outcomes (i.e., delinquent and violent behaviors) no sex differences were found (e.g., Gorman-Smith & Loeber, 2005; Soenens et al., 2006). Overall, the literature remains inconclusive on how pathways between parental monitoring, acceptance, and externalizing outcomes may vary by sex, and need to be explored further.

As individuals progress through adolescence, the use and effectiveness of parental behaviors may vary for younger and older adolescents. As they get older, adolescents may increasingly regulate their own activities and their disclosure regarding the details of these activities to parents. They spend less time with parents and gain more autonomy and behavioral control (McElhaney, Allen, Stephenson, & Hare, 2009). From the onset of puberty, early adolescents may communicate less frequently and have fewer warm interactions with parents (Paikoff & Brooks-Gunn, 1991). Over the course of adolescence, youth disclose less information to their parents (Finkenauer, Engels & Meeus, 2002; Laird et al., 2013; Smetana, Daddis, & Chuang, 2003), and may view direct solicitation of information or behavioral restrictions by parents as more intrusive (Smetana & Metzger, 2008; Smetana et al., 2006). For example, in a concurrent study of 227 Dutch adolescents grouped into younger (12-13 years old) and older (16-18 years old) subsamples, younger adolescents disclosed more information to parents in comparison to the older adolescents (Finkenauer et al., 2002). Papini et al. (1990) also found that younger adolescents (seventh graders) were more likely to disclose information to their parents than older adolescents (ninth graders), and that older adolescents disclosed information to peers instead. Lastly, in a

cross-sectional study of 276 ninth and twelfth graders, Smetana et al. (2006) showed that twelfth grade boys disclosed less information to parents than either twelfth grade girls or ninth grade boys and girls. These results highlight suggest that sex differences in youth disclosure of information to parents may become more apparent with age.

Parental knowledge has also been shown to decrease with age (Patterson, & Stouthamer-Loeber, 1984) as adolescents are both away from home more often and disclose less information to parents. Patterson & Stouthamer-Loeber (1984) conducted a study focusing on 300 boys in fourth, seventh and tenth grades, and results indicated that parental knowledge declined from fourth to tenth grades. These results suggest that parental knowledge is influenced by age; however, more longitudinal research is necessary to strengthen our knowledge of relations in this area. Child disclosure and parental knowledge are important factors that have been shown to protect adolescents from externalizing behaviors (e.g., Formoso et al., 2000; Lansford et al., 2003; Scaramella et al., 1999; Simons-Morton & Chen, 2005). It is therefore important to explore how relations between parenting behaviors, child disclosure, and externalizing behaviors are impacted by differences in sex and age.

Statement of the Problem

Adolescents are at greater risk for externalizing behaviors as compared to children, and these types of behaviors (e.g., delinquency and aggression) may lead to negative health and academic outcomes (Odgers et al., 2008; Zimmerman et al., 2013). A number of studies show that parental knowledge operates as a protective factor to decrease externalizing behaviors in adolescence (Kerr & Stattin, 2000; Racz & McMahon, 2011; Soenens et al., 2006; Vieno et al., 2009). These studies highlight the importance of examining *how* parents

obtain knowledge, through parent-driven behaviors of parental solicitation and control and the child-driven behavior of disclosure (Kerr & Stattin, 2000; Stattin & Kerr, 2000), as these behaviors can uniquely impact adolescent adjustment. Some studies highlight that child disclosure is the “driver” of parental knowledge, especially in adolescence, and that efforts should focus on better understanding those parent-driven behaviors that facilitate child disclosure (Racz & McMahon, 2011). Several studies have found that parental control, solicitation, and acceptance predict increased child disclosure (e.g., Blodgett-Salafia et al., 2009; Hamza & Willoughby, 2011; Padilla-Walker et al., 2011; Vieno et al., 2009), and also highlight the protective nature of combined parental control and acceptance (e.g., Caron et al., 2006; Keijsers et al., 2009; Kerr et al., 2012). Child disclosure, in turn, has been shown to predict increased parental knowledge (Kerr & Stattin, 2000; Stattin & Kerr, 2000). Finally, parental knowledge may predict fewer externalizing behaviors (e.g., Griffin et al., 2000; Fletcher et al., 2004; Laird et al., 2010; Soenens et al., 2006).

A few research studies have developed more comprehensive models to better understand how these parenting components work together (Soenens et al., 2006; Vieno et al., 2009) and how they impact each other across time (e.g., Fletcher et al., 2004). Other researchers have suggested that relations between specific parental components may differ across sex (e.g., Crouter & Head, 2002; Keijsers et al., 2010; Laird et al., 2013; Papini et al., 1990; Vieno et al., 2009), age (e.g., Finkenauer et al., 2002; Laird et al., 2013; Papini et al., 1990; Smetana et al., 2006), and race/ethnicity (e.g., Baumrind, 1972; Deater-Deckard & Dodge, 1997; Pettit et al., 1993; Smetana et al., 2002).

The present study sought to address several limitations in the current literature. First, it attempted to examine all four components of parental monitoring (Kerr & Stattin, 2000;

Stattin & Kerr, 2000), as well as parental acceptance. Only a few studies have included models that show pathways between all of these parental monitoring components. For example, most studies examining associations between parental monitoring variables and externalizing outcomes have not included parental solicitation (e.g., Soenens et al., 2006; Vieno et al., 2009). By including all the components of parental monitoring, the present study extended the literature in understanding how parental solicitation influences and is influenced by other parental monitoring variables. Similarly, another novel contribution was from investigating the potential moderating role of parental acceptance on relations between parental solicitation and parental knowledge. Therefore, the addition of this parenting variable may further explain how parental monitoring behaviors and parental acceptance are interconnected, and this line of research is also consistent with traditional parenting style (e.g., Julian et al., 1994; Mulvaney & Morrissey, 2011; Reis, 1993). Additionally, although many studies highlight links between parenting behaviors and externalizing outcomes, most included composite measures (e.g., Bacchini et al., 2011; Laird et al., 2010; Vieno et al., 2009), and few have separately assessed aggression. Therefore, more research is needed on the effects of parental monitoring behaviors on specific externalizing outcomes.

In conclusion, the present study sought to address prior limitations in the literature by focusing on an African American sample, through the inclusion of parental solicitation, and by examining relations between parental monitoring behaviors, acceptance, parental knowledge, and externalizing behaviors longitudinally and testing for sex and age differences in these relations. The overall goal was to better understand the parent-adolescent relationship and those factors that decrease the likelihood of adolescents engaging in externalizing behaviors.

Study Hypotheses

The current study examined the following hypotheses on relations between parental monitoring, parental acceptance, parental knowledge, and externalizing outcomes:

Hypothesis 1: It was hypothesized that a mediating effect of child disclosure at T2 on relations between parental solicitation and parental control at T1 and parental knowledge at T3 would be present. It was also hypothesized that a moderated mediation effect would be present such that the mediating effect of child disclosure would be stronger for adolescents with higher versus lower levels of perceived parental acceptance.

Hypothesis 2: It was hypothesized that stronger relations between child disclosure (T2) and parental knowledge (T3) would be found for fifth graders as compared to eighth graders. Analyses examining sex differences in relations among these variables were exploratory.

Hypothesis 3: Finally, it was hypothesized that parental knowledge at T3 would mediate relations between child disclosure at T2 and aggression and delinquency at T3. It was also hypothesized that higher levels of child disclosure (T2) and parental knowledge (T3) would be associated fewer externalizing behaviors.

Method

Setting

Data from the first three waves of Project COPE were used for the present study. Project COPE was a four-year longitudinal study, funded through the National Institute of

Drug Abuse (NIDA), which examined exposure to community and peer violence, poverty, and additional stressors, parent and child responses to stressors, and their impact on drug use outcomes. A maternal caregiver and their adolescent were interviewed annually, and included two cohorts of adolescents (5th and 8th grades).

Eligible families were recruited from a large city in the Southeastern United States. U.S. Census data from 2011 showed that 50.3% of the population of this city was African American, 42.7% was European American, and the remaining 7% represented another racial/ethnic background or endorsed two or more racial/ethnic backgrounds (U.S. Census Bureau, 2011a). U.S. Census data also found that 26.3% of the city population lived below the poverty level (U.S. Census Bureau, 2011b). According to city statistics, this city has one of the highest crime rates in America, compared to cities of similar size. In fact, 97% of communities within the state where this city is located were safer in terms of general crime rates. Recent statistics highlighted that violent crimes, including murder, were among the highest in the country (Neighborhood Scout, 2012a). In this city, there were approximately 173 crimes per square mile, while the National mean is 39.6 crimes per square mile (Neighborhood Scout, 2012b).

Participants

Participants included 326 adolescents (46% male) from inner-city neighborhoods. Data were also collected from the adolescents' primary maternal caregivers. The current study focused on the first three waves of Project COPE data, which were collected yearly across a two-year timeframe. The baseline sample included students in two cohorts of fifth ($n = 173$) and eighth graders ($n = 153$). The fifth graders ranged in age from 9 to 12 ($M = 10.72$,

$SD = 0.63$) and the eighth graders ranged in age from 12 to 16 ($M = 13.66$, $SD = 0.76$). The entire sample was comprised of African American adolescents.

A total of 326 families completed the baseline assessment in this study. At this assessment, maternal caregivers ranged in age from 24 to 56 ($M = 36.60$, $SD = 6.30$). Approximately 34% of the caregivers made \$300/week or less, and 37% of the caregivers made \$600/week or less. Maternal caregivers encompassed biological mothers (86%), grandmothers (7%), adopted mothers (2%), stepmothers (1%) or other (4%), and served a maternal role in the household. Family structure varied for these maternal caregivers; around 42% never married, 33% married or were cohabiting at the time of assessment, 13% were separated, 10% divorced and 2% widowed. Lastly, the level of education for the maternal caregivers varied, but 77% had a high school diploma or higher.

Procedure

The Institutional Review Board at Virginia Commonwealth University approved all procedures for Project COPE. Families who participated in Project COPE were from neighborhoods characterized with high violence and/or low socioeconomic status. They were recruited through community agencies (e.g., Boys and Girls clubs), flyers, and community events around eligible neighborhoods. There was no clinical screening process; however, families were eligible if they spoke English, had a fifth or an eighth grader, and if a female caregiver could be present for an interview. Prior to data collection, active assent from youth and parental permission from the caregivers was obtained, and copies of the consent forms were given to the caregivers. Of the families deemed eligible, 63% opted to participate in Project COPE.

Over a course of four weeks, interview training took place. Interviewers had to complete training on research protocols and interview techniques, as well as practice sessions, paperwork, and assignments. The supervisor of the study gave feedback to the interviewers before they could start the actual interview process. Feedback was also given from a sample of interviewed families to make sure that the interviewers were professional and maintaining standard protocol throughout the study.

Interviews were conducted in separate rooms for caregivers and for adolescents; they were face-to-face interviews, where the interviewers read all of the questionnaires aloud. Adolescents who passed a reading-screening test were able to complete the more sensitive scales without the assistance of the interviewer. All in all, the interviews for both the caregiver and adolescent took around 2.5 hours to complete. In appreciation for their time and effort, each family received a \$50 gift card for each interview that they completed over the 24-month period.

Measures

For the present study, measures assessed parental monitoring (parental control, parental solicitation, child disclosure and parental knowledge), parental acceptance, and externalizing outcomes, including aggression and delinquency (please see appendix for non-copyrighted measure items).

Parental monitoring. Parental monitoring was measured using the Parenting Practices Scale (Stattin & Kerr, 2000), a child-report and parent-report measure comprised of four subscales. These subscales assessed parental knowledge, child disclosure, parental solicitation and parental control, all behavioral components of parental monitoring. Participants and their caregivers completed the 24-items comprising these subscales, using a

five-point response scale (1 = *higher knowledge (disclosure, solicitation or control)* and 5 = *little knowledge (disclosure, solicitation or control)*). Most items were reversed scored so that higher scores indicated higher levels of parental monitoring and knowledge.

The parental knowledge subscale consisted of nine items, and included questions such as, “Do you know what (*child*) does during his/her free time?” (parent report) and “Do your parents usually know what type of homework you have?” (child report). A composite of parent and child report of parental knowledge was utilized for this specific study. The Cronbach’s alpha for parental knowledge in the current study was .83 at T2 and .78 for T3.

The child disclosure subscale consisted of five items, and included questions as, “Do you usually tell your parents how school was when you get home?” and “If you are out at night, when you get home, do you tell what you have done that evening?” The child-report of child disclosure was utilized for the current study. Cronbach’s alpha for child disclosure in the current study with child report was .75 at T1 and .78 at T2.

The parental solicitation subscale consisted of five items, and included questions such as, “How often do you talk with (*child’s*) friends when they come to your home (ask what they do or what they think and feel about different things)?” and “How often do you initiate a conversation about things that happen during a normal day at school for (*child*)?” The parent-report version was utilized for the present study, and Cronbach’s alpha for parental solicitation parent report was .69 at T1.

The parental control subscale consisted of five items, and included questions such as, “Before (*child*) goes out on a weekend night, do you require (*child*) to tell you where s/he is going and with whom?” and “Does (*child*) need to have your permission to stay out late on a

weekday evening?” The parent-report of this subscale was utilized for the current study, and Cronbach’s alpha for parental control parent report was .75 at T1.

Parental acceptance. Adolescent perceptions of parental acceptance were assessed using the Child Report of Parent Behavior Inventory (CRPBI; Schaefer, 1965). More specifically, the Felt Acceptance Subscale was used to assess children’s perceived acceptance from their maternal caregiver via self-report. On this subscale there were 20 items (e.g. “Understands your problems and your worries”) that assess acceptance/rejection. Participants rated how representative each item was of their parent using a three-point response scale (*1 = a lot like*), (*2 = somewhat like*) and (*3 = not like*). Many of the items were reversed scored so that higher scores indicated higher levels of perceived acceptance. For the present study, the Cronbach’s alpha was .86 at T1.

Delinquency and aggression. Delinquency and aggression were assessed using the Problem Behavior Frequency Scales (PBFS; Farrell, Kung, White, & Valois, 2000). This self-report measure has a total of seven subscales, examining aggression, drug use, delinquency, and several subtypes of aggression, and victimization. For the current study, the delinquency and aggression subscales were utilized.

The delinquency subscale has a total of eight items (e.g. “Stolen something from another student” or “Skipped school”) and participants rated how frequently each item occurred in the past 30 days using a six-point response scale (*0 = never*, *1 = 1-2 times*, *2 = 3-5 times*, *3 = 6-9 times*, *4 = 10-19 times*, and *5 = 20 times or more*). A higher score on this subscale indicated higher levels of delinquency. For the delinquency subscale, Cronbach’s alpha was .74 at T2 and .72 at T3.

The total aggression subscale of the measure encompassed three separate subtypes of aggression within the PBFS, including physical aggression, nonphysical aggression and relational aggression. The physical aggression subscale had seven items (e.g., “shoved or pushed another kid”), the nonphysical aggression subscale had five items (e.g., “put someone down to their face”), and the relational aggression subscale had six items (e.g., “spread a false rumor about someone”). Participants rated how frequently these items occurred in the past 30-days using the same six-point response scale as delinquency, (*0 = never, 1 = 1-2 times, 2 = 3-5 times, 3 = 6-9 times, 4 = 10-19 times, and 5 = 20 times or more*). A total aggression score was calculated by averaging the three subscales. Therefore, a higher total aggression score indicated higher levels of overall aggression. For the present study, Cronbach’s alpha for the total aggression subscale was .85 at T2 and .84 at T3.

Parent report of delinquency and aggression was measured with the Child Behavior Checklist (CBCL; Achenbach, 1991). The measure assessed a child’s behavioral and emotional problems within the last three months. The delinquency subscale consisted of thirteen items (e.g., “lying or cheating” or “steals outside the home”), where participants rated the items on a three-point scale (*0 = not true (as far as you know), 1 = somewhat or sometimes true, 2 = very true or often true*). Higher scores indicated higher levels of child delinquent behavior. Cronbach’s alpha for the current study was .78 at T2 and .77 at T3.

The aggression subscale consisted of 20 items (e.g., “disobedient at school” or “threatens people”), and participants were asked to rate the items using a three-point response scale (*0 = not true (as far as you know), 1 = somewhat or sometimes true, 2 = very true or often true*). Higher scores indicated a higher level of child aggressive behavior. Cronbach’s alpha in the current study was .92 at T2 and .91 at T3.

Data Analyses

Prior to data analyses, data were cleaned and study measures were created and checked to assure the range of values for each variable was acceptable. The skewness and kurtosis of each variable were also examined, and winsorized if needed. Winsorizing procedures by Tabachnick and Fidell (1996) were followed: outliers where the Z score was greater than three standard deviations above or below the mean (i.e., $Z > \text{or} < 3.29$) were recoded such that $Z = 3.29$. All data preparation took place using IBM Statistics SPSS – Version 22.

Data was then exported and analyzed using M-Plus Version 7.11 (Muthen & Muthen, 2012). Longitudinal meditation models were run separately for each hypothesis. First, a mediation model was run to assess the extent to which child-reported child disclosure at T2 mediated relations between parent-reported control and solicitation at T1 and parental knowledge (parent/child report) at T3. Secondly, sex and grade differences in relations between the paths for this model were tested using multiple group analyses. To assess sex differences, an unconstrained model where the path coefficients were allowed to vary by sex was compared to a constrained model where path coefficients were set to be equal across sex. The same analyses were then run to assess relations between variables by grade (fifth versus eighth graders). Finally, a mediation model was run to assess the extent to which child disclosure (child report, T2) and externalizing outcomes (including aggression and delinquency, parent and child report, T3) were mediated by parental knowledge (parent/child report, T3).

The fit of these models was assessed using the χ^2 value, the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Values of 0.90 or

above for the CFI (Bentler, 1992) and 0.08 or below for the RMSEA (Browne & Cudeck, 1993) indicated that the model adequately fit the data. The fit for the unconstrained and constrained models when comparing sex and grade differences were compared by examining the differences in CFI, RMSEA, χ^2 difference test, and the Bayesian Information Criterion (BIC). Finally, the significance of the direct and indirect effects was determined using the delta method (MacKinnon, 2008).

Results

Attrition Analyses and Descriptive Statistics

An analysis of variance (ANOVA) test was run to compare participants at T2 who provided data at both T1 and T2 ($N = 290$) to those who only provided data at T1 ($N = 36$). Additionally, another ANOVA was run to compare participants at T3 who provided data at T1 to T3 ($N = 246$) to those who only provided data at T1 ($N = 80$). No significant differences were found between the groups based on demographics, parental acceptance, parental monitoring behaviors, and externalizing outcomes.

Descriptive statistics, including means and standard deviations, were examined for each study variable (see Table 1). Descriptive statistics on parental control indicated low variability ($M = 24.79$, $SD = .57$, range = 5-25), with the majority of caregivers reporting very high levels of parental control.

Table 1

Means, Standard Deviations, and Scale Ranges of Study Variables for the Total Sample

Variable	Total Sample		
	<i>M</i>	<i>SD</i>	Scale Range
1. Parental Control (PR) T1	24.79	0.57	5-25
2. Parental Solicitation (PR) T1	19.23	3.92	5-25
3. Parental Acceptance (CR) T1	50.14	7.06	20-60
4. Child Disclosure (CR) T1	19.71	4.57	5-25
5. Child Disclosure (CR) T2	19.63	4.47	5-25
6. Parental Knowledge (CR/PR) T2	77.06	8.75	18-90
7. Parental Knowledge (CR/PR) T3	76.91	7.45	18-90
8. Aggressive Behaviors (CR) T2	8.06	8.87	0-90
9. Aggressive Behaviors (CR) T3	8.72	10.06	0-90
10. Delinquent Behaviors (CR) T2	1.49	2.30	0-40
11. Delinquent Behaviors (CR) T3	1.82	2.79	0-40
12. Aggressive Behaviors (PR) T2	10.47	8.17	0-40
13. Aggressive Behaviors (PR) T3	9.50	7.29	0-40
14. Delinquent Behaviors (PR) T2	3.06	2.96	0-26
15. Delinquent Behaviors (PR) T3	2.84	2.69	0-26

Note. CR = child report; PR = parent report; T1 = time 1; T2 = time 2; T3 = time 3.

Correlations were also run among study variables. Parental control was positively related to parental solicitation ($r = .21$). Parental solicitation was positively related to all parental monitoring and acceptance variables (r s ranging from .16 to .29). Parental

acceptance was positively related with child disclosure and parental knowledge, at both T2 and T3 (*rs* ranging from .14 to .47). Child disclosure at T1 and T2 was positively related to all parental monitoring and acceptance variables (*rs* ranging from .35 to .64), and negatively related to all externalizing outcomes with the exception of Time 3 parent-report of aggression and delinquency (*rs* ranging from -.13 to -.32). Parental knowledge at Time 2 and 3 was positively related to all parental monitoring and parental acceptance variables (*rs* ranging from .14 to .50) and negatively related to most externalizing outcomes (*rs* ranging from -.15 to -.39). Child-report externalizing behaviors were positively and significantly related to each other at Time 2 and Time 3 (*rs* ranging from .16 to .67) as were the parent report externalizing behaviors (*rs* ranging from .14 to .73). Child-report of aggression at T2 and T3 were significantly related to parent-report of aggression T3 (*rs* ranging from .17 to .18). Child-report of delinquency at T2 and T3 was significantly related to parent-report of delinquency at T3 (*rs* ranging from .22 to .23).

Table 2

Intercorrelations among study variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Parental Control PR – W1	-														
2. Parental Solicitation PR – W1	.21***	-													
3. Parental Acceptance – CR – W1	.06	.16**	-												
4. Child Disclosure CR – W1	.08	.21***	.47***	-											
5. Child Disclosure CR – W2	-.07	.17**	.35***	.51***	-										
6. Parental Knowledge CR/PR – W2	.10	.29***	.35***	.49***	.64***	-									
7. Parental Knowledge CR/PR – W3	.04	.18**	.14*	.35***	.42***	.50***	-								
8. Aggressive Behaviors CR – W2	-.01	-.11	-.07	.26***	-.26***	-.31***	-.29***	-							
9. Aggressive Behaviors CR – W3	.04	-.12*	-.12*	-.22***	-.26***	-.20***	-.39***	.52***	-						
10. Delinquent Behaviors CR – W2	-.04	-.08	-.08	-.32***	-.30***	-.32***	-.26***	.58***	.32***	-					
11. Delinquent Behaviors CR – W3	-.02	-.10	-.17**	-.24***	-.31***	-.26***	-.35***	.39***	.67***	.44***	-				
12. Aggressive Behaviors PR – W2	-.09	-.06	-.15**	-.10	-.13*	-.30***	-.11	.17**	.18**	.16**	.11	-			
13. Aggressive Behaviors PR – W3	-.01	-.05	-.00	.02	.07	-.03	-.16**	.08	.07	.03	.01	.15**	-		
14. Delinquent Behaviors PR – W2	-.10	-.10	-.14*	-.19***	-.18**	-.39***	-.15**	.19***	.20***	.23***	.22***	.73***	.14*	-	
15. Delinquent Behaviors PR – W3	-.02	.00	.02	.04	.01	-.08	-.31***	.10	.09	.06	.06	.20***	.70***	.27***	-

Note. PR = parent report; CR = child report; W1 = wave 1; W2 = wave 2; W3 = wave 3.

* $p < 0.05$. ** $p < .01$. *** $p < .001$.

Hypothesis 1

A longitudinal path model was run using M-Plus 7.11 (Muthén & Muthén, 2013) to determine the extent to which child disclosure at T2 mediated relations between parental control and solicitation at T1 and parent/child-reported parental knowledge at T3. Covariates in this model included family structure (father presence), child disclosure at T1, and parental knowledge at T2. The model fit the data well, $\chi^2(1, N = 326) = .25, p = .61$, CFI = 1.00, and RMSEA = 0.00. Significant, positive associations were found for variables across time points, indicating stability among child disclosure (T1 and T2) and parental knowledge (T2 and T3). Parental control at T1 was directly associated with child disclosure at T2 ($\beta = -.13, Z = -2.75, p < .01$) (see Figure 1). No other direct or indirect effects were found among study variables for this model (see Table 3 for direct and indirect effects). Due to the insignificant mediations, no analyses were run to test the moderating effect of parental acceptance.

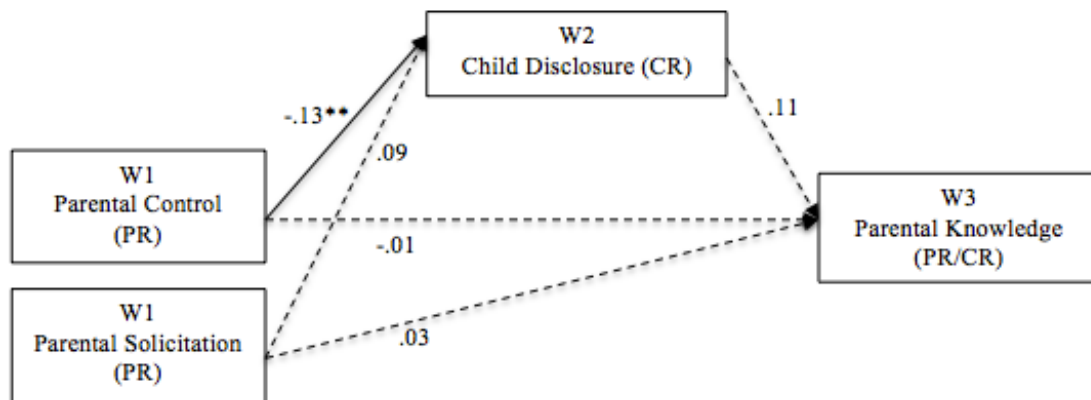


Figure 1. Path model representing relations between parental control and solicitation, child disclosure and parental knowledge.

Note. Covariates included in the model (Child Disclosure (child report; T1), Parental Knowledge (parent/child report; T2), and father presence) were not reported in the figure to reduce complexity.

****** $p < .01$.

Table 3

Standardized Path Coefficients for Model 1: Direct, Indirect and Total Effects

Effects	B	SE
Model 1 (Parental control, solicitation, knowledge, child disclosure)		
Direct Effects		
Direct effect of parental control on child disclosure	-.13**	.05
Direct effect of parental control on parental knowledge	-.01	.07
Direct effect of parental solicitation on child disclosure	.09	.05
Direct effect of parental solicitation on parental knowledge	.03	.07
Direct effect of child disclosure on parental knowledge	.11	.11
Indirect Effects		
Indirect effect of parental control via child disclosure	-.01	.02
Indirect effect of parental solicitation via child disclosure	.01	.01

Note. ****** $p < .01$.

Hypothesis 2: Sex & Grade

Multiple group models were first run to assess sex differences. An unconstrained model where the path coefficients were allowed to vary by sex was compared to a constrained model where the path coefficients were set to be equal across sex. The constrained model fit the data well, $\chi^2(5, N = 321) = 5.86, p = .32$, CFI = 1.00, RMSEA = 0.03, and was favored over the unconstrained model based on the non-significant χ^2 difference test and improvement in the BIC values (9742.55 versus 9765.72). This suggested that there were no significant sex differences among study variables.

Multiple group models were run to also assess grade differences. An unconstrained model where the path coefficients were allowed to vary by grade was compared to a constrained model where the path coefficients were set to be equal across grade. The constrained model fit the data well, $\chi^2(5, N = 321) = 2.33, p = .80$, CFI = 1.00, RMSEA = 0.00, and was supported over the unconstrained model based on the non-significant χ^2 difference test and improvement in the BIC values (9689.92 versus 9716.66). Therefore, the constrained model was favored across grade (see Table 4), suggesting no significant grade differences among study variables.

Table 4

Chi-square tests and measures of overall fit for the longitudinal path models

Model	χ^2	<i>df</i>	CFI	RMSEA	BIC
Sex – Unconstrained	0.00	0	1.00	0.00	9765.72
Sex – Constrained	5.86	5	1.00	0.03	9742.55
Grade – Unconstrained	0.00	0	1.00	0.00	9716.66
Grade – Constrained	2.33	5	1.00	0.00	9689.92
Combined Sample	0.25	1	1.00	0.00	9625.30

Note: CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; BIC = Bayesian Information Criterion.

Hypothesis 3

A longitudinal path model was run to determine the extent to which parental knowledge at T3 mediated relations between child disclosure at T2 and child- and parent-reported externalizing (aggressive and delinquent) behaviors at T3. Covariates in this model included family structure (father presence), parental knowledge at T2, and externalizing behaviors at T2. The model fit the data well, $\chi^2 (12, N = 326) = 11.59, p = .48$, CFI = 1.00, and RMSEA = 0.00. Child disclosure at T2 was directly and positively associated with parental knowledge at T3, ($\beta = .18, Z = 2.00, p < .05$). Also, child disclosure at T2 was directly and positively associated with parent reports of aggressive behaviors at T3, ($\beta = .18, Z = 2.21, p < .05$) and delinquent behaviors at T3 ($\beta = .23, Z = 3.09, p < .01$). No significant direct effects were found between child disclosure at T2 and child reports of aggressive or

delinquent behaviors at T3. Parental knowledge at T3 was significantly negatively associated with child reported aggressive behaviors ($\beta = -.33$, $Z = -5.91$, $p < .001$) and delinquent behaviors ($\beta = -.26$, $Z = -4.25$, $p < .001$) at T3. Additionally, parental knowledge at T3 was significantly negatively associated with parent reported aggressive behaviors at ($\beta = -.25$, $Z = -3.01$, $p < .01$) and delinquent behaviors ($\beta = -.39$, $Z = -5.20$, $p < .001$) at T3 (see Figure 2).

Examination of indirect effects indicated that parental knowledge at T3 did not significantly mediate relations between child disclosure at T2 and child- and parent-reported externalizing behaviors at T3. Please see Table 5 for indirect and direct effects.

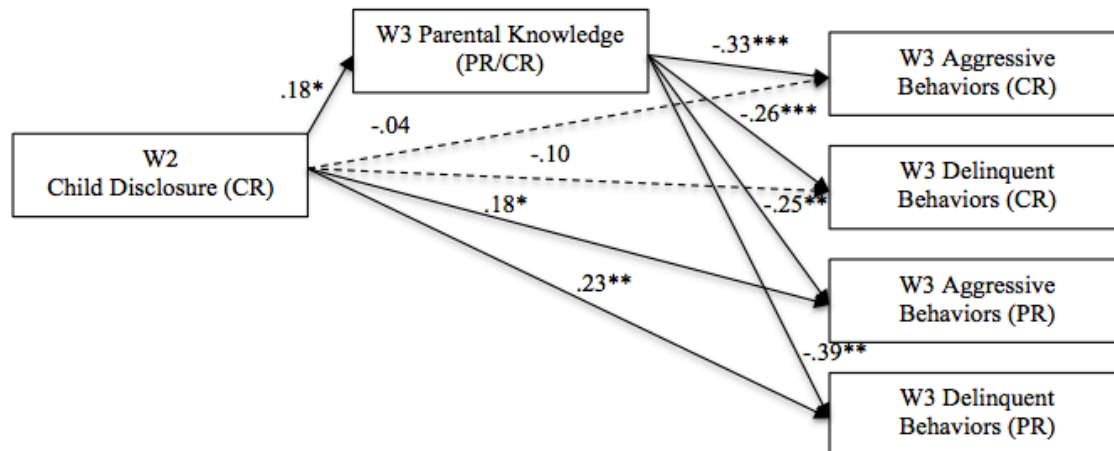


Figure 2. Path model representing relations between child disclosure, parental knowledge and externalizing behaviors

Note. Covariates included in the model (Parental Knowledge (parent/child report; T2), Aggressive and Delinquent Behaviors (child report; T2), Aggressive and Delinquent Behaviors (parent report; T2), and father presence) were not reported in the figure to reduce complexity.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Standardized Path Coefficients for Model 2: Direct, Indirect and Total Effects

Effects	B	SE
Model 2 (Child disclosure, parental knowledge & externalizing behaviors)		
Direct Effects of Child disclosure		
Direct effect of child disclosure on aggressive behaviors (CR)	-.04	.07
Direct effect of child disclosure on delinquent behaviors (CR)	-.10	.06
Direct effect of child disclosure on aggressive behaviors (PR)	.18*	.08
Direct effect of child disclosure on delinquent behaviors (PR)	.23**	.07
Direct Effects of Parental Knowledge		
Direct effect of parental knowledge on aggressive behaviors (CR)	-.33***	.06
Direct effect of parental knowledge on delinquent behaviors (CR)	-.26***	.06
Direct effect of parental knowledge on aggressive behaviors (PR)	-.25**	.08
Direct effect of parental knowledge on delinquent behaviors (PR)	-.39***	.08
Direct effect of child disclosure on parental knowledge	.18*	.09
Indirect Effects		
Indirect effect of child disclosure on aggressive behaviors (CR)	-.06	.03
Indirect effect of child disclosure on delinquent behaviors (CR)	-.05	.03
Indirect effect of child disclosure on aggressive behaviors (PR)	-.04	.09
Indirect effect of child disclosure on delinquent behaviors (PR)	-.07	.06

Note. CR = child report; PR = parent report

* $p < .05$. ** $p < .01$. *** $p < .001$.

Post Hoc Analyses

In order to test a comprehensive model including all study variables across the three time points, post hoc analyses were run. A longitudinal path model was run to determine the extent to which both parental knowledge (parent/child report) and child disclosure (child report) at T2 mediated relations between parental solicitation (parent report) and parental acceptance (child report) at T1, and externalizing outcomes (parent and child report) at T3. Parental control was dropped from these post hoc analyses due to insufficient variation. Also, due to the insignificant mediation of hypothesis #1, parental acceptance was added to these analyses, as it was not previously examined. Sex and grade differences were not assessed in post hoc analyses, as no sex and grade differences were previously found in hypothesis #2, suggesting that the full sample should be examined.

Covariates in this model included family structure, parental knowledge and child disclosure at T1, and externalizing behaviors at T2. The model fit the data well, $\chi^2 (22, N = 326) = 43.18, p = .005$, CFI = .97, and RMSEA = 0.05. Parental acceptance at T1 was significantly and positively associated with child disclosure at T2 ($\beta = .17, Z = 3.01, p < .01$), and parental knowledge at T2 ($\beta = .12, Z = 2.28, p < .05$). No direct effects were found between parental solicitation at T1 and either child disclosure or parental knowledge at T2. Also, child disclosure at T2 was significantly and negatively associated with child-reported aggressive behaviors ($\beta = -.20, Z = -2.49, p < .05$) and delinquent behaviors at T3 ($\beta = -.21, Z = -2.82, p < .01$). No significant direct effects were found between parental knowledge at T2 and the externalizing outcomes at T3, or between child disclosure at T2 and parent-reported externalizing outcomes at T3 (please see Figure 3).

Examination of indirect effects indicated that child disclosure at T2 significantly mediated the effect of parental acceptance at T1 on child-reported delinquent behaviors ($\beta = -.04$, $Z = -1.99$, $p < .05$) at T3. Please see Table 6 for indirect and direct effects.

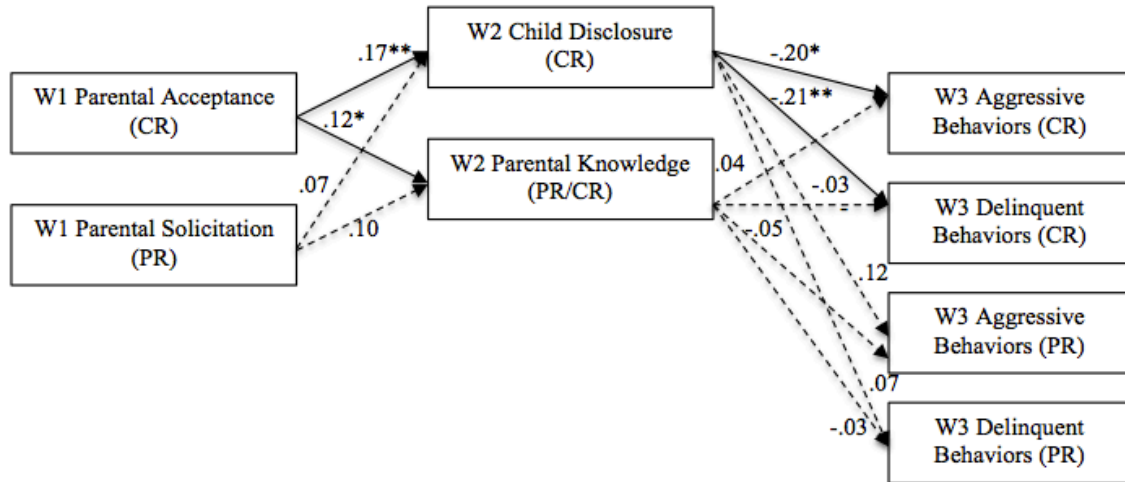


Figure 3.

Path model representing relations between parental solicitation, parental acceptance, child disclosure, parental knowledge and externalizing behaviors.

Note. Covariates included in the model (Parental Knowledge (parent/child report; T1), Child Disclosure (child report; T1), Aggressive and Delinquent Behaviors (child report; T2), Aggressive and Delinquent Behaviors (parent report; T2), and father presence) were not reported in the figure to reduce complexity.

$^*p < .05$. $^{**}p < .01$.

Table 6

Standardized Path Coefficients for Post Hoc Analyses: Direct, Indirect and Total Effects

Effects	B	SE
Model 3 (Parental acceptance, solicitation, knowledge, child disclosure and externalizing outcomes)		
Direct Effects		
Direct effect of parental acceptance on child disclosure	.17**	.06
Direct effect of parental acceptance on parental knowledge	.12*	.05
Direct effect of parental solicitation on child disclosure	.07	.05
Direct effect of parental solicitation on parental knowledge	.10	.06
Direct effect of child disclosure on aggressive behaviors (CR)	-.20*	.08
Direct effect of child disclosure on delinquent behaviors (CR)	-.21**	.07
Direct effect of child disclosure on aggressive behaviors (PR)	.12	.09
Direct effect of child disclosure on delinquent behaviors (PR)	.07	.08
Direct effect of parental knowledge on aggressive behaviors (CR)	.04	.07
Direct effect of parental knowledge on delinquent behaviors (CR)	-.03	.08
Direct effect of parental knowledge on aggressive behaviors (PR)	-.05	.09
Direct effect of parental knowledge on delinquent behaviors (PR)	-.03	.09
Indirect Effects via Child Disclosure		
Indirect effect of parental solicitation on aggressive behaviors (CR) via child disclosure	-.01	.01
Indirect effect of parental solicitation on delinquent behaviors (CR) via child disclosure	-.02	.01
Indirect effect of parental solicitation on aggressive behaviors (PR) via child disclosure	.01	.01

Indirect effect of parental solicitation on delinquent behaviors (PR) via child disclosure	.01	.01
Indirect effect of parental acceptance on aggressive behaviors (CR) via child disclosure	-.04	.02
Indirect effect of parental acceptance on delinquent behaviors (CR) via child disclosure	-.04*	.02
Indirect effect of parental acceptance on aggressive behaviors (PR) via child disclosure	.02	.02
Indirect effect of parental acceptance on delinquent behaviors (PR) via child disclosure	.01	.02
Indirect Effects via Parental Knowledge		
Indirect effect of parental solicitation on aggressive behaviors (CR) via parental knowledge	.00	.01
Indirect effect of parental solicitation on delinquent behaviors (CR) via parental knowledge	.00	.01
Indirect effect of parental solicitation on aggressive behaviors (PR) via parental knowledge	-.01	.01
Indirect effect of parental solicitation on delinquent behaviors (PR) via parental knowledge	.00	.01
Indirect effect of parental acceptance on aggressive behaviors (CR) via parental knowledge	.01	.01
Indirect effect of parental acceptance on delinquent behaviors (CR) via parental knowledge	.00	.01
Indirect effect of parental acceptance on aggressive behaviors (PR) via parental knowledge	.00	.01
Indirect effect of parental acceptance on delinquent behaviors (PR) via parental knowledge	.00	.01

Note. CR = child report; PR = parent report

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The purpose of the current study was to examine the relations between parental monitoring behaviors (i.e., solicitation and control) and acceptance, child disclosure, parental knowledge, and externalizing outcomes among a sample of urban, African American adolescents. Contrary to expectations, no significant relations were found between parental solicitation at T1 and child disclosure at T2 or parental knowledge at T3. Also, parental control at T1 was related to decreased child disclosure at T2. As hypothesized, higher levels of parental knowledge at T3 were associated with child- and parent-report of lower rates of externalizing outcomes at T3. Child disclosure at T2 was also associated with higher levels of parental knowledge at T3, supporting the premise that child disclosure is the “driver” of parental knowledge (Racz & McMahon, 2011). Contrary to hypotheses, higher levels of child disclosure at T2 were related to higher levels of parent-reported externalizing behaviors at T3. Overall, findings showed that relations among variables were consistent across sex and grade. Finally, post hoc analyses revealed that parental acceptance at T1 predicted higher levels of child disclosure at T2, and child disclosure significantly mediated the relations between parental acceptance at T1, and lower frequencies of child-reported delinquent behaviors at T3.

This study contributed to the literature on relations between parenting and adolescent behaviors in several ways. In addition to being one of the first studies to examine relations between parental monitoring behaviors and acceptance, child disclosure, and externalizing outcomes among African American adolescents (Caron et al., 2006; Griffin et al., 2000; Richards et al., 2004), it also examined relations between these study variables across a span of two years. Other studies (e.g., Soenens et al., 2006; Vieno et al., 2009) examined relations

between these constructs but focused on European samples and used cross-sectional designs. The current study was also one of the first to include the parent monitoring behavior of parental solicitation, and thus provides important information on relations between this variable and child disclosure, parental knowledge, and externalizing behaviors. The current study analyses also tested relations between child disclosure and parental knowledge and separate outcomes of aggression and delinquency, instead of using a composite measure of externalizing behavior. Lastly, analyses examined differences in both sex and grade (i.e., to compare relations among study variables for early versus mid-adolescents).

Parental Knowledge, Child Disclosure, and Externalizing Outcomes

The current study findings replicated those of other researchers who found that parental knowledge was negatively associated with externalizing behaviors (e.g., Kerr & Stattin, 2000; Loeber & Stouthammer-Loeber, 1987; Racz & McMahon, 2011; Stattin & Kerr, 2000; Vieno et al., 2009), and this finding was consistent across child- and parent-report of aggressive and delinquent behaviors. However, post-hoc analyses indicated that parental knowledge at T2 did not predict changes in child- or parent-reported aggression or delinquency at T3, which was not consistent with several studies that have shown prospective relations between these constructs (e.g., Fletcher et al., 2004; Griffin et al., 2000; Lahey et al., 2008; Murray et al., 2010; Willoughby & Hamza, 2011). Differences in the findings of this longitudinal study as compared to prior studies may reflect the fact that the most previous studies used composite measures of externalizing behaviors and European or European-American samples (e.g., Fletcher et al., 2004; Willoughby & Hamza, 2011). The current study also differed from some prior research based on its focus on adolescents living in neighborhoods characterized by high levels of crime and poverty. In this context, a number

of risk factors at multiple socio-ecological levels may be present for involvement in aggression and delinquency, and these factors may create difficulties for parents in interceding on adolescents' behalf to reduce their involvement in these externalizing behaviors. Given the developmental changes in adolescence, it is also possible that parental knowledge at one point in development may have less impact on externalizing behaviors that occur one year later. This may be especially true given the dynamic and fluid nature of some risk factors (e.g., peer group affiliations) for aggression and delinquency.

Contrary to hypotheses, higher levels of child disclosure predicted higher levels of parent-reported aggression and delinquency one year later. Research has repeatedly shown that child disclosure results in lower rates of externalizing behaviors in youth (e.g., Frijns et al., 2010; Keijsers et al., 2009; Kerr et al., 2010). One explanation for this finding is from Keijsers et al. (2009) who demonstrated that secrecy was a critical element within the broader construct of child disclosure, which may be more closely tied to problematic outcomes in youth. Higher levels of child disclosure were also related to parent- but not child-report of aggression and delinquency. This suggests that the more an adolescent discloses information to a parent, the more likely the parent is aware of and able to report delinquent or aggressive behaviors. Another possible explanation for the positive relations between disclosure and externalizing behaviors is the influence of parental responses to disclosure via parental messages and attitudes. For example, if an adolescent discloses more information to his/her parent, and parental messages are supportive of antisocial behavior, this may also increase the risk for externalizing outcomes (e.g., Farrell, Henry, Mays, & Schoeny, 2011). This study was unique as it had both child- and parent-report of aggressive

and delinquent behaviors, and future research would benefit from examining discrepancies among child and parent report of study variables.

Parenting Practices that Promote Parental Knowledge

In the second model, higher levels of child disclosure predicted higher levels of parental knowledge one year later. Kerr and Stattin (2000; Stattin & Kerr, 2000) underscored the importance of understanding monitoring strategies that may enhance parental knowledge. In their research, the relationship among child disclosure and parental knowledge was the strongest, in comparison to parental control and solicitation. A meta-analysis also concluded that child disclosure is the “driver” of parental knowledge (Racz & McMahon, 2011), and this result has been replicated in cross-sectional (Eaton et al., 2009; Padilla-Walker et al., 2011; Soenens et al., 2006; Vieno et al., 2009) and longitudinal studies (Blodgett-Salafia et al., 2009; Hamza & Willoughby, 2011; Kerr et al., 2010; Willoughby & Hamza, 2011). The current study’s findings provide further support for the idea that adolescent’s spontaneous and voluntary disclosure of information is a fundamental source of parental knowledge. It is well understood that adolescents play a more active role in the parent-child relationship during adolescence in deciding what they wish to disclose to parents (Frijns et al., 2005; Smetana et al., 2006). Family systems theory provides a framework for understanding the reciprocity of parent-adolescent interactions (Bowen, 1974; Gavazzi, 2011), and from this framework, one can see how parents and adolescents influence each other, suggesting that both behave actively and reactively (Kerr & Stattin, 2003). These results showed that child disclosure is an essential way that parents obtain knowledge about their adolescents’ whereabouts and activities.

Parental control and parental solicitation are parent-driven monitoring strategies that have been shown to be associated with (e.g., Padilla-Walker et al., 2011; Soenens et al., 2006; Stattin & Kerr, 2000; Vieno et al., 2009) and predictive of higher levels of parental knowledge (Fletcher, 2004; Hamza & Willoughby, 2011). However, in the current study neither parent-driven monitoring strategy was found to predict higher levels of parental knowledge across a two-year time frame. The mediating effect of child disclosure on this relationship was also investigated to see if heightened levels of child disclosure explained the relations between parent-driven monitoring behaviors and parental knowledge. This indirect effect was not found in the current study, suggesting that another parenting or adolescent behavior may explain the relationship between these study variables. Due to the insignificant findings with these study variables, the moderated-mediation (parental acceptance x parental control and parental acceptance x parental solicitation) was not tested. However, relations between these variables should continue to be examined in future research, which may help further explain how they work together.

Parenting Practices that Promote Child Disclosure

As shown in the literature and in the results from the current study, child disclosure is a significant predictor of increased levels of parental knowledge (Hamza & Willoughby, 2011; Keijsers et al., 2009; 2010a; 2010b; Vieno et al., 2009). Thus, it is important to understand the parental factors that may increase child disclosure to parents. Previous research suggested that parent-driven monitoring behaviors, such as parental control and solicitation, might encourage higher amounts of child disclosure (e.g., Fletcher et al., 2004). Contrary to hypotheses, results from the current study showed that higher levels of parental control predicted decreased levels of child disclosure. This finding was not anticipated based

on literature detailing traditional parenting styles that suggests higher levels of parental control may not be viewed negatively by African American youth based on cultural values that emphasize parents' inherent authority and children's respect for and compliance with parental rules and decisions (Baumrind, 1987; Julian et al., 1994; Mulvaney & Morrissey, 2011). While no assumptions can be made about parenting styles of the families in the current study sample, researchers highlight that the dynamics of traditional parenting style include a combination of high levels of parental demandingness and responsiveness that have been associated with positive child outcomes (Baumrind, 1987). Parental control is an aspect of demandingness, and thus high levels of parental control may facilitate child disclosure only in presence of a responsive parenting. Prior studies documented positive associations between parental control and child disclosure (Soenens et al., 2006; Vieno et al., 2009), but also that parental control did not predict increased child disclosure over time (e.g., Hamza & Willoughby, 2011; Kerr et al., 2010). It may be that child disclosure leads to increased parental control, resulting in subsequent decreases in the level of child disclosure. Some researchers have suggested that adolescents may view high levels of parental control negatively as being intrusive (e.g., Kerr & Stattin, 2000; Smetana & Metzger, 2008), and this could decrease child disclosure. The current study findings supported this notion, as adolescents may be less inclined to provide a parent with information if they feel controlled or restricted (Kerr & Stattin, 2000; Kerr et al., 2010). These results also did not differ by grade or sex, meaning that parental control predicted less child disclosure for both early and mid-adolescents and across sex.

Although previous research suggested that parental solicitation is associated with higher levels of child disclosure (e.g., Hamza & Willoughby, 2011; Padilla-Walker et al.,

2011), there is substantially less literature on parental solicitation in comparison to parental control. It was hypothesized that high levels of solicitation would promote higher levels of child disclosure, due to solicitation promoting communication and connectivity among parents and adolescents (Baumrind, 1972). While this relationship was not found in the current study, similarly to parental control, parental solicitation can also be seen as an aspect of demandingness (Baumrind, 1987), and thus may also be viewed negatively by adolescents if parents appear too intrusive or controlling through their means of soliciting information (Hawk et al., 2008; Smetana & Metzger, 2008). It is suggested that parental control and solicitation may need to be re-negotiated as an adolescent matures, as communication and trust are vital roles with the parent-adolescent relationship (Roker & Stace, 2007).

Due to the non-significant mediation between parent-driven monitoring behaviors and parental knowledge (via child disclosure), the moderating effect of parental acceptance was not tested for the current study. Previous literature has suggested that the combination of parental acceptance with control and solicitation may increase levels of child disclosure (e.g., Amato & Fowler, 2002; Fletcher et al., 2004; Laird & Marrero, 2010), especially among African American families (e.g., Deater-Deckard & Dodge, 1997; Lowe & Dotterer, 2013; Pettit et al., 1993; Pittman & Chase-Lansdale, 2001; Smetana et al., 2002; Veneziano, 2000; Zimmerman et al., 2000). The combination of high parental control and solicitation, and high parental acceptance, is consistent with a traditional parenting style, which may be most beneficial to African American youth. Future research would benefit from exploring competing models of relations between these variables (e.g., direct versus moderating effects) on child disclosure and parental knowledge.

Post Hoc Analyses

Several additional analyses stemming from the original analyses were addressed using post hoc analyses. The direct relationships between parental acceptance and child disclosure as well as parental knowledge was tested, as well as the mediating effect of both child disclosure and parental knowledge on relations between parental solicitation and externalizing outcomes and between parental acceptance and externalizing outcomes. Parental control was dropped from post hoc analyses due to low variability, which is further addressed in the limitation section.

In these analyses, parental acceptance directly predicted higher levels of child disclosure and parental knowledge one year later. Parental acceptance is considered an essential parenting behavior in establishing secure attachments for adolescents (Baumrind, 1980; Kerns et al., 2001; Scott et al., 2011). Parental acceptance has been shown to promote positive psychological adjustment (Hale et al., 2007) and healthy parent-adolescent relationships (Vazsonyi & Belliston, 2006). Numerous studies have also found that parental acceptance is associated with child disclosure and parental knowledge (e.g., Blodgett-Salafia et al., 2009; Guilamo-Ramos et al., 2006; Hare et al., 2011; Smetana et al., 2006; Soenens et al., 2006; Vieno et al., 2009). Parental acceptance may enhance communication within the parent-adolescent relationship, and provide an adolescent with feelings of support, connectedness, and responsiveness (Scott et al., 2011), making an adolescent feel more willing to disclose information. Feelings or perceptions of parental acceptance may be essential to adolescents, as they are facing a multitude of changes and transitions in adolescence (Baumrind, 1991; Hawk et al., 2008).

From these results, child disclosure, but not parental knowledge, also predicted fewer child-reported aggressive and delinquent behaviors one year later. Child disclosure has been shown previously to predict decreases in delinquent behavior (Keijsers et al., 2009; Kerr et al., 2010) and antisocial behaviors (Laird & Marrero, 2010). Additionally, child disclosure at T2 significantly mediated the relationship between parental acceptance at T1 and child-reported delinquent behaviors at T3. These results have important implications, signifying that adolescents play a large role in the parent-adolescent relationship, and that parents need to find ways to encourage communication and disclosure within the relationship. Perceptions of high parental acceptance, in turn, increase higher levels of disclosure and communication within the parent-adolescent relationship, ultimately protecting youth from delinquent behaviors.

Limitations

While there were a number of strengths within the current study, it is also important to acknowledge several limitations. Although the current study highlighted important relations between parental acceptance, parental monitoring, and externalizing behaviors, there are many additional parenting behaviors and dimensions to consider, such as parental messages in parent-child communication. Also, the current study examined behaviors encompassed within a traditional parenting style, but parenting styles were not directly assessed. The sample in the current study was made up of African American youth living in urban, low socio-economic neighborhoods. Therefore, conclusions from this study may not be generalizable to samples of youth living in different socio-ecological contexts or who represent other racial/ethnic backgrounds.

Another limitation from the current study is that the measure of parental control appeared to have a ceiling effect, with very little variation. This may have occurred due to the nature of the sample, which was comprised of families living in neighborhoods characterized by high rates of crime and violence. There is literature suggesting that parenting behaviors may differ according to cultural and contextual (e.g., neighborhood) dynamics (Jones et al., 2008; Pinderhughes, Nix, Foster, & Jones, 2001; Rankin & Quane, 2002). Thus, parents living in neighborhoods characterized by high levels of crime and violence may adopt more stringent parental control, and higher overall rates of parental monitoring. These differences in parental control behaviors may reflect a more authoritarian versus traditional parenting style. However, due to the limited variability within this construct, parental control was not included in the post hoc analyses. The nature of this variability does paint a picture of what the levels of parental control looked like for this sample of African American families in high violence neighborhoods. Further research would benefit from examining the nature of parental control and traditional parenting in these contexts to capture the uniqueness of this variable.

Finally, the current study did not have data from fathers or other types of parental figures. Family systems are becoming much more diverse in the United States, and it is important to understand parenting in various family structures. This is a limitation, as parenting behaviors may differ between fathers, mothers and other caretakers. It would be beneficial to examine these constructs with parenting dyads or with a variety of diverse family structures.

Implications & Future Research Directions

The current study's findings emphasize the need to identify and encourage parenting behaviors that promote child disclosure and overall levels of communication within a family system. However, given that child disclosure was positively related to increased parent-reported externalizing behaviors one year later, further research is needed to identify potential moderators of this relation. For example, parental responses to child disclosure, such as those supporting non-violence or violence, may play a strong role in predicting the frequencies of adolescents' externalizing behaviors in the future (Farrell et al., 2011). Parents who respond to child disclosure in reactive ways or with intrusive monitoring behaviors may also undermine future patterns of open communication with their child. Thus, it is important to consider the bi-directional influences of child-parent communication (i.e., not only the information disclosed by the adolescent but the way parents respond and the messages they convey about the information that is disclosed). Parental acceptance may also be an important construct to explore in potentially encouraging more or continual communication after disclosure (Tilton-Weaver & Marshall, 2008). Overall, future research is needed on the content and quality of communications after children disclose information to parents, and the parental and child factors that may encourage adaptive patterns of ongoing communication.

Also, as suggested previously, future research should investigate the moderating effect of parental acceptance on parent-driven monitoring behaviors, such as parental solicitation. The combination of high solicitation and high parental acceptance is consistent with a traditional parenting style (Baumrind, 1972), and this pattern of parenting behaviors is important to explore in minority populations. Research supports the benefits of parenting that is high in responsiveness and demandingness (Amato & Fowler, 2002; Pittman-Chase &

Lansdale, 2001), future research should explore the extent to which high versus low levels of parental acceptance influence the relations between parental solicitation and child disclosure and parental knowledge, respectively.

Conclusions

Although previous research demonstrated that parental monitoring and acceptance was associated with fewer externalizing symptoms among adolescents (e.g., Formoso et al., 2000; Lansford et al., 2003; Racz & McMahon, 2011; Stattin & Kerr, 2000; Vieno et al., 2009), few studies have examined this combination of variables longitudinally, considered aggressive and delinquent behaviors separately, and used both parent and child report of study variables. Also, little research exists on relationships between these variables among African American adolescents living in neighborhoods characterized by low socioeconomic status and high rates of crime and violence. Results from the current study replicated findings that child disclosure was associated with higher levels of parental knowledge, and also demonstrated the influence both variables have on externalizing behaviors in adolescence. Additionally, findings showed the power of parental acceptance in predicting fewer delinquent behaviors through increasing levels of adolescents' disclosure of information to parents. While adolescents are at a higher risk for externalizing behaviors, the implications of this study highlight that parent-adolescent communication and parental acceptance may enhance the parent-adolescent relationship and to potentially decrease the risk for externalizing behaviors. This finding highlights the importance of future research to determine how types of parental monitoring (e.g., reactive versus proactive) and messages following child disclosure (e.g., those supporting violence and non-violence) may influence the adolescents' future behaviors.

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Appendix

Measures

Child Report of Behavior Inventory, Felt Acceptance Subscale

(Schaefer, 1965)

Child Report

Response Options: 1 = A lot like, 2 = Somewhat like, 3 = Not like

Items:

1. Makes you feel better after talking over your worries with her.
2. Is NOT very patient with you.
3. Thinks your ideas are silly.
4. Understands your problems and your worries.
5. Forgets to help you when you need help.
6. Smiles at you very often.
7. Always getting after you (or nagging you about something).
8. Acts as though you are in the way.
9. Almost always complains about what you do.
10. Enjoys doing things with you.
11. Enjoys working with you in the house or yard.
12. Often blows her top when you bother her.
13. Comforts you when you are afraid.

14. Cheers you up when you are sad.
15. Does not get you things unless you ask for them over and over again.
16. Does NOT seem to know what you need or want.
17. Has a good time at home with you.
18. Does NOT work with you.
19. Seems proud of the things you do.
20. Is able to make you feel better when you are upset.

Parenting Practices Scale

(Stattin & Kerr, 2000)

- **Child Report (child disclosure and parental knowledge subscales)**
- **Parent Report (parental control, parental solicitation, and parental knowledge subscales)**

Response options: Anchors vary by item content; rated on a 5-point scale

Items for Child Report, Parental Knowledge Subscale:

1. Do your parents know what you do during your free time?
2. Do your parents know the friends you hang out with during your free time?
3. Do your parents usually know what type of homework you have?
4. Do your parents know what you spend your money on?
5. Do your parents usually know when you have an exam or paper due at school?
6. Do your parents know how you do in different subjects at school?
7. Do your parents know where you go when you are out with friends at night?
8. Do your parents normally know where you go and what you do after school?

9. In the last month, have your parents ever had no idea of where you were at night?

Items for Child Report, Child Disclosure Subscale:

10. Do you talk at home with your parents about how you are doing in the different subjects in school?
11. Do you usually tell your parents how school was when you get home (how you did on different exams, your relationships with teachers, etc.)?
12. Do you keep a lot of secrets from your parents about what you do during your free time?
13. Do you hide a lot from your parents about what you do during nights and weekends?
14. If you are out at night, when you get home, do you tell what you have done that evening?

Items for Parent Report, Parental Knowledge Subscale:

1. Do you know what (*child*) does during his/her free time?
2. Do you know which friends (*child*) hangs out with during his/her free time?
3. Do you usually know what type of homework (*child*) has?
4. Do you know what (*child*) spends his/her money on?
5. Do you know when (*child*) has an exam or paper due at school?
6. Do you know how (*child*) does in different subjects at school?
7. Do you know where (*child*) goes when s/he is out with friends at night?
8. Do you normally know where (*child*) goes and what s/he does after school?
9. In the last month, have you ever had no idea of where (*child*) was at night?

Items for Parent Report, Parental Solicitation Subscale:

10. In the last month, how many times have you talked with the parents of (*child's*) friends?
11. How often do you talk with (*child's*) friends when they come to your home (ask what they do or what they think and feel about different things)?
12. During the past month, how often have you started a conversation with (*child*) about his/her free time?
13. How often do you initiate a conversation about things that happened during a normal day at school for (*child*)?
14. Do you usually ask (*child*) to talk about things that happened during his/her free time (who s/he met when s/he was out in the city, free time activities, etc.)?

Items for Parent Report, Parental Control Subscale:

15. Does (*child*) need to have your permission to stay out late on a weekday evening?
16. Does (*child*) need to ask you before deciding with his/her friends what they will do on a weekend evening?
17. If (*child*) has been out very late one night, do you require that s/he explain what s/he did and who s/he was with?
18. Do you require that (*child*) tell you where s/he is at night, who s/he is with, and what they do together?
19. Before (*child*) goes out on a weekend night, do you require (*child*) to tell you where s/he is going and with whom?

Problem Behavior Frequency Scales, Aggression and Delinquency Subscales

(Farrell, Kung, White, & Valois, 2000)

Child Report

Response options: 1 = Never, 2 = 1-2 Times, 3 = 3-5 Times, 4 = 6-9 Times, 5 = 10-19 Times,
6 = 20 times or more

Items for Aggression (includes Physical, Nonphysical, Relational) Subscale:

Physical Aggression Subscale:

1. Thrown something at someone to hurt them
2. Been in a fight in which someone was hit
3. Threatened to hurt a teacher
4. Shoved or pushed another kid
5. Threatened someone with a weapon (gun, knife, club, etc.)
6. Hit or slapped another kid
7. Threatened to hit or physically harm another kid

Nonphysical Aggression Subscale:

8. Insulted someone's family
9. Teased someone to make them angry
10. Put someone down to their face
11. Gave mean looks to another student
12. Picked on someone

Relational Aggression Subscale:

13. Didn't let another student be in your group anymore because you were mad at them
14. Told another kid you wouldn't like them unless they did what you wanted them to do

15. Tried to keep others from liking another kid by saying mean things about him/her
16. Spread a false rumor about someone
17. Left another kid out on purpose when it was time to do an activity
18. Said things about another student to make other students laugh

Items for Delinquency Subscale:

1. Been on suspension
2. Stolen something from another student
3. Snuck into someplace without paying such as movies, onto a bus, or subway
4. Skipped school
5. Cheated on a test
6. Taken something from a store without paying for it (shoplifted)
7. Written things or sprayed paint on walls or sidewalks or cars where you were not supposed to
8. Damaged school or other property that did not belong to you.

Vita

Rachel C. Garthe was born on February 23, 1990, in LaSalle-Peru, Illinois. She graduated from LaSalle-Peru Township High School in 2008. She received her Bachelor of Arts, Magna Cum Laude, in Psychology from North Central College, Naperville, Illinois in December of 2011. Rachel worked as a research assistant in multiple labs at North Central College, and she was awarded the Outstanding Psychology Award in 2012, as well as the Megan Sweeney Award for the student with the highest academic achievement in the class of 2012. Rachel now attends Virginia Commonwealth University in Richmond, Virginia, and is a doctoral candidate in the Developmental Psychology program. She currently works in several research labs, and serves as a teaching assistant and instructor at Virginia Commonwealth University.